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# Music and Auditory Transportation: An Investigation of the Music Experience

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Graduate Program in Business  
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy  
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MUSIC AND AUDITORY TRANSPORTATION: AN INVESTIGATION  
OF THE MUSIC EXPERIENCE

(Thesis format: Monograph)

by

Gail Leizerovici

Graduate Program in Business Administration

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy

The School of Graduate and Postdoctoral Studies  
The University of Western Ontario  
London, Ontario, Canada

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## Abstract

To date, music has been primarily investigated as an atmospheric component of retail environments, or as a manipulable variable to assess consumer behaviour responses. However, across disciplines, listening to music has been shown to foster group membership, decrease anxiety, improve mood, and induce strong physical reactions such as thrills and chills. My dissertation research looks at closing this gap by investigating how music can offer more to its consumer than is currently understood. Using a mixed-method approach, I first explore the phenomenon of experiencing a favourite song. Following that, I experimentally investigate: 1) how and whether different modes of music can induce an emotive, cognitive and imagery filled experience (auditory transportation), 2) whether this transportation experience results in differences across songs that have happy versus sad personal connotations, and 3) whether manipulating varying levels of auditory transportation can in turn influence other consumer-related downstream behaviors. The contribution this research stands to make includes a theoretical one: I introduce a theory (transportation) previously limited to the visual domain into the auditory domain, while also systematically investigating whether it can predict psychological changes, and if these changes in turn influence marketplace interactions. Practically, I involve participants in the choosing of the music stimuli for experimentation, thereby not only increasing validity, but also addressing an important gap in the study of music consumption as a form of experiential consumption.

**Keywords:** experiential consumption, auditory transportation, music, narrative transportation, mixed method

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# Chapter 1

*“Music is the shorthand of emotion”*

- Leo Tolstoy

*“Freeze this moment a little bit longer, make each sensation a little bit stronger”*

-Rush

## 1 Introduction

It is no secret that we, as humans, are visually overloaded. We are bombarded by signs and images embedded in a landscape already saturated by the visually dense 21<sup>st</sup> century global environment. Places of escape typically embody clutter-free, natural landscapes and serene images of waterfronts and wide open spaces. While researchers have examined the information overload, and particularly, the visual overload phenomenon for some time (c.f. Malhotra 1984), another of the human senses has remained rather under-investigated. Auditory experiences and the investigation of how this sense influences our lives in a more pervasive manner is the thrust of this research. I explicitly focus on music, and follow the definition by Gaver (1993) who conceptualizes music as organized sound. I further use this form of sound (music) to explore how it is a means for bringing about psychological changes that have been otherwise overlooked by the marketing discipline.

To date, marketing researchers have studied music as a component of retail environments and as a manipulable variable to assess consumer behavior responses (e.g. in advertisements) (e.g. Beverland et al. 2006; Hargreaves and North 1997; Kellaris et al. 1989, 1992, 1993; Kotler 1973; MacInnis and Park 1991; Smith and Curnow 1966;

Spangenberg, Grohmann and Sprott 2005; Zhu and Meyers-Levy 2005). However, recent statistics suggest that 45% of people listen to 10 or more hours of music per week (Lab 42 Market Research 2012), and that presumably, this is music they have control over choosing. Further, a recent recording industry report places (legal) digital music listening and purchasing on the rise, with a growth of 0.2% from 2011-2012, the first of its kind since 1998 (IFPI Digital Music Report 2013). The predominantly digital manner that music is accessed has shown that digital subscriptions are the dominant point of consumer access and that this trend is growing internationally. In fact, one statistic suggests that Pandora has over 150 million registered users and that over 73% of polled consumers (N=500) belong to a social music site (Lab 42 Market Research 2012).

In the literature outside of marketing, recent work beginning with Sloboda (1999), and extended by Hargreaves and North (1997), Sloboda et al. (2001), North et al. (2004) and Juslin et al. (2008) also tells us that music has considerable importance in consumers' lives. For instance, using the Experience Sampling Method (ESM), Juslin and colleagues (2008) found that over 37% of randomly triggered data collection episodes (that is, individuals carrying remote devices who were randomly contacted) contained music. Furthermore, these musical episodes also reportedly had emotional effects on participants, where reported emotions ranged from feelings of calm-contentment to happiness-elation (Juslin et al. 2008).

It is apparent that the application and study of music should not be limited to the retail and advertising context, as is currently the case in the marketing field, but should be considered as part of consumers' everyday experiences. In this body of work I use a mixed-method approach to investigate the consumer's music experience. I first look at

how individual consumers describe their personal listening experience with favorite songs using a phenomenological approach. Based on the data obtained in this phase, I then investigate the music experience with experiments, using narrative transportation theory as a lens to explain how music is experienced, what the experience is like, and what consequences this can have in consumers' day-to-day lives.

## Chapter 2

### 2 Literature Review

#### 2.1 Introduction and Overview

Music is arguably one of humankind's universal languages (c.f. Sloboda 1985). To better understand the significance of music, it is necessary to take a cross-disciplinary approach. By drawing on diverse literature music can be understood from a variety of perspectives and theories, with each of these approaches providing unique contributions on music, its role in society and its effects on human life. For example, musicology, the study of music, has looked at the various medias of sound that exist in human culture. These have often been categorized into three domains that include sound mediated by the human body, sound reproduced via objects such as musical instruments, and sound in digital form (Jensen 2006).

In a different example, anthropologists use our ancestors and their bid for survival to understand the significance of music. According to this approach, the development of vocal communication is a result of the need for our ancestors' safety (Levitin 2008). While grooming of others was the manner often used for maintaining peace and friendship, the rapid growth of group sizes (for purposes of protection) meant that it was no longer an efficient form of peacekeeping. Instead, vocal interactions and coordinated singing took its place (Levitin 2008).

While the brief examples above highlight a long tradition of research on music in other disciplines, marketers have only begun to appreciate the role of music as a



consumption activity. As described in the introduction, music has been investigated primarily as an atmospheric variable in retail contexts (e.g. Baker, Grewal and Parasuraman 1994; Beverland et al. 2006; Garlin and Owen 2006; Grewal et al. 2003; Kotler 1973), and as a manipulable variable in advertising (e.g. Hung 2001; Kellaris, Cox and Cox 1993; Yalch and Spangenberg 1990; Zhu and Meyer-Levy 2005). However, disciplines such as music psychology, arguably the most important source for the present review, suggest that we listen to music in a wide range of environments, for a variety of reasons, and that these musical episodes affect how we feel (e.g. Juslin et al. 2008; Kellaris and Kent 1993; Larsen, Lawson and Todd 2009; North et al. 2004; Sloboda et al. 2001).

To gain a more holistic understanding of how music is experienced, this literature review begins with a discussion on experiential consumption. Following this, I provide a review on music, both from the psychology discipline followed by the marketing discipline. The objective of this latter cross-disciplinary review is not to provide an exhaustive discussion of the music psychology literature. Rather, my aim is to provide the reader with a more well rounded view of how music has been approached in a relevant and closely related discipline, and to offer necessary conceptual boundaries (cognitions, perceptions and emotions) for the present thesis. In the last and final section I conclude with a research program overview.

## 2.2 Experiential Consumption

Holbrook and Hirschman (1982) are largely credited for first bringing awareness to the need to study consuming from a non-cognitive or functionally motivated

perspective. Counter to the often-used information-processing lens (e.g. Bettman 1979), Holbrook and Hirschman (1982) promoted an affective and imagery-laden perspective to consuming. That is, rather than a manner of understanding consumer behavior as a sequential model informed by informational inputs, cognitive-affective-behavioral processing, and some form of evaluative output, the experiential consumption lens views consuming as a phenomenological, emotional and imagery-filled process (Holbrook and Hirschman 1982).

Experiential consumption is largely defined as a phenomenon that consists of concepts such as flow, fantasies, feelings and fun (Arnould and Price 1993, Holbrook and Hirschman 1982). In fact, the TEAV model (Hirschman and Holbrook 1986) closely follows this conceptualization by suggesting that consumption experiences (regardless of their extra-ordinariness) are comprised of thoughts, emotions, activities and evaluations. These four components are integrated and interconnected rather than sequential, and feed into one another as the experience unfolds (Hirschman and Holbrook 1986).

Since these early beginnings, scholars have moved toward an investigation of the experiential aspects of consumption focusing in turn on the motives for experiential consumption (e.g. Hirschman 1984; Sherry 1990), how experiences are consumed (e.g. Holt 1995; Lofman 1991), extraordinary experiences (e.g. Arnould and Price 1992; Celsi, Rose and Leigh 1998; Schouten 1991), the role of the consumer (e.g. Addis and Holbrook 2001), and servicescapes (e.g. Bigne, Mattila and Andreu 2008; O'Cass and Grace 2004).

An important commonality among these various works is the distinction between the context/structure of exchange, and the motives for exchange (economic/utilitarian/functional vs. hedonic/pleasure seeking/aesthetic) (Carù and Cova

2003; Lofman 1991; Sherry 1990). Experiential consumption largely falls under the hedonic motivation for exchange, as it is by nature about the pursuit of subjective fun, feelings and creating an altered sense of reality (Hirschman and Holbrook 1982; Holbrook and Hirschman 1982; Joy and Sherry 2003; Pine and Gilmore 1998). It is also suggested to span various contexts and structures (e.g. formal market vs. informal market) (Arnould and Price 1992; Carù and Cova 2003; Holt 1995; Sherry 1990).

For example, Sherry's (1990) marketplace typology combines the economic vs. festive (hedonic) continuum with a formal vs. informal market structure continuum. In this perspective, experiential consumption is understood as an event embedded within a larger marketplace context, which further dictates the structure of the event. As a result, experiential consumption can readily occur both in a structured (e.g. theme park) or unstructured (e.g. garage sale) marketplace setting.

Similarly, Carù and Cova (2003) promote a typology that contrasts a continuum of ordinary vs. extraordinary experiences with a continuum of consumer (market) vs. consumption (non-market/societal) contexts. Here, the economic perspective is referred to as the consumer experience context, while the hedonic perspective is referred to as the consumption experience context. According to Carù and Cova (2003), experiential consumption need not be relegated one quadrant or type, but can in fact be found in each area depending on the context of the exchange and the degree of extraordinariness. They further suggest that experiential marketing, as employed by businesses, can be found in the quadrant bounded by the consumer experience (market) and extraordinary experiences (Carù and Cova 2003; 2007) On the other hand, they also suggest that mundane, everyday consumer and consumption experiences can occur outside and beyond business contexts

(Carù and Cova 2003). This position further informs the present dissertation by providing a foundation for investigating music as a form of experiential consumption outside the marketplace context.

Other work has viewed consumer experiences as one of four types of consumption practices (Holt 1995). Holt's (1995) typology of consumption is particularly relevant to the present research as it describes both an underlying motive (autotelic vs. instrumental) and the structure of the event/action (object focused vs. interpersonal). Holt (1995) presents experiential consumption ("Consuming as Experience") as a combination of an object-centered focus (the experience) and an autotelic purpose (as an end in itself). An extension of experiential consumption may also be found in "Consuming as Integration" where the object-centered focus remains, yet is further understood as an instrumental (as a means to an end) purpose. For example, one may attend a baseball game not only to consume an experience, but to also achieve some additional derived benefits, such as a heightened sense of self.

Despite the above examples demonstrating the range in which experiential consumption can be investigated, there has been some concern that marketing scholars have focused too closely on viewing experiences as marketplace centered and extra-ordinary (Carù and Cova 2003; 2007). Based on this and the preceding discussion, the present research is anchored on the assumption that everyday mundane consumption activities can be understood via an experiential lens, and can occur outside of the standard marketplace exchange context (Carù and Cova 2003; 2007; Holbrook and Hirschman 1982). Further, I draw on the TEAV model (Hirschman and Holbrook 1986) as a conceptual foundation to guide the questions used in the following qualitative study, namely focusing on thoughts,

emotions, activities and evaluations to better understand the music experience. First though, this review turns to an in depth look at how music has been investigated in both psychology and marketing.

## 2.3 Music and Psychology

The psychological study of music can be traced to an early work by physicist and philosopher Hermann von Helmholtz in 1863, titled “On the Sensations of Tone as a Physiological Basis for the Theory of Music”. This work was quite rare, as it was not until the 1930’s when scholars from various disciplines including music theory, physics, anthropology and cognitive psychology began to actively work together on a systematic study of music. Initially, this growing body of research focused on comprehension of musical components (e.g. tone, rhythm, melody, etc.; see Mursell 1932), and later, on music composition (see Jacobs 1960) and computational models of music cognition (see Longuet-Higgins 1976, and Steedman 1977).

These cross-disciplinary interests in music gave way to studying not just the systematic processing of music (e.g. Steedman 1977), but to also explore “how we understand music” (Dowling et al. 2008). By seeking to understand music, scholars began to refine their efforts towards a pursuit that allowed music to be explored via a more psychological based perspective. By the 1980s, these efforts resulted in the formation of what is referred to as the music psychology discipline (Graziano 2009). During this time, seminal works including John Sloboda’s 1985 book “The Musical Mind”, were produced. This particular work is often cited as one of the field’s first major contributions,

particularly as Sloboda's background spans training in both music and cognitive psychology, demonstrating the discipline's cross-disciplinary roots.

Today, various streams of research pertaining to how we understand music or the psychology of music have evolved. As a manner of organizing the following review and in keeping within the scope of the present research, the following areas will be highlighted: 1) Cognition, 2) Perception (including cross-modal perception), and 3) Emotions (including strong experiences). While there is overlap amongst these areas, as for example, with perception and cognition, the following review will treat these areas separately in order to maintain the organizational framework. Further, there are also other areas outside of this framework that involve music research, as for example, with neuroscience (c.f. Grahn, Henry and McAuley 2011; Grahn 2012). However, this review will focus on the aforementioned three major areas in order to provide a broad and well-rounded view on the music psychology discipline.

### *2.3.1 Cognition.*

Music has a long tradition of being investigated by researchers in the cognitive science community (c.f. Pearce and Rohrmeier 2012). Some of the earliest works were known to focus on cognitions related to rhythms and tones (e.g. Longuet-Higgins 1976; Steedman 1977). Since the 1980s when music psychology found its place as a discipline, music cognition has held a dominant role amongst researchers who have commonly viewed music as an important human ability, much like language (i.e. Koelsch 2012; Peretz 2006; Sloboda 1985). Work in this area suggests that music is not only used for healing, social bonding, regulating mood and enhancing well-being, but it also involves

complex processes that engage the mind's perceptual, emotional and cognitive processes (c.f. Levitin and Tirovolas 2009; Pearce and Rohrmeier 2012).

Support for music as a uniquely human trait has been found in cross-cultural studies that show that all cultures have and recognize music in various forms. Most interesting though, is the idea that humans are gifted with the unique ability to create music (Pearce and Rohrmeier 2012). We have evolved with the ability to discern relative pitch and to identify patterns in beats, likely because this served our ancestors in communicating and maintaining a sense of group harmony. As a result of this unique capability, music psychology research has investigated aspects of our cognitive abilities involving perception, attention, memory, language, action and emotion (c.f. Pearce and Rohrmeier 2012). The following section details some of the recent work on music and cognition with a particular focus on how music can enhance overall cognitive functioning.

*Cognitive Functioning.* Music has been beneficial in improving both the mind and the brain's functions (Gueguen, Jacob and Lamy 2010; Overy 1998; Rauscher 1998; Koutsoupidou and Hargreaves 2009). Exposure to music has been shown to promote creative problem solving skills (Koutsoupidou and Hargreaves 2009), enhance memory for liked stimuli (Stalinski and Schellengberg 2013), and improve attentional allocation and the speed to which problems are solved (Escoffer et al. 2010).

Despite these findings research in the area of music and cognitive functioning has seen its share of controversies. For example, while some research has suggested that the combination of music and cognitive tasks actually detracts from successful performance (e.g. Cassidy and MacDonald 2007; Furnham and Bradley 2008), other work has shown that music can be used to enhance cognitive functioning- particularly if the task and

music's rhythm are coordinated and synced (Escoffer et al. 2010). Proponents of this position suggest that we have internal "dynamic oscillators" that determine our attention to rhythm, and that external events (such as rhythms) influence and synchronize with our internal oscillators. Dynamic Attending Theory (DAT) (c.f. Jones 1976; Jones and Boltz 1989; Large and Jones 1999) explains that attention to rhythm in one modality (such as music) can influence attention to other modes (such as pictorial problems), such that synchronicity in musical rhythm and presentation of the visual stimuli enhances the speed and accuracy of solving visual problems.

Another area where this controversy is present can be found in the discussion on the role of music in education. While opponents argue that music need not be part of childhood education, there has been considerable support from the music psychology discipline that music education is in fact an important developmental tool (e.g. Overy 1998; Rauscher 1998). Research has shown that music lessons improve spatial and temporal tasks amongst 1<sup>st</sup> grade students (Hurwitz et al. 1975), verbal and quantitative skills in 10-11 year olds (Costa-Gioni 1997), and spatial-temporal reasoning abilities (Rauscher et al. 1997). In addition, music literacy offers therapeutic benefits to children with learning difficulties such as ADHD and dyslexia, by allowing them to perform better with language, coordination, concentration, attention, and memory (Salmon 1981; Sutton 1995). Beyond school-aged children, music education has been shown to actually alter the brain's wiring (Rauscher 1998). Specifically, trained musicians who start their music education before the age of seven have thicker corpus callosums (known as a band of nerves that connect the left and right hemispheres) and a larger neural structure in the left vs. the right hemisphere (Schlag 2001).



Overall, evidence suggests that music is not only an important evolutionary human capability and communication tool, it also involves complex cognitive processes which promote better overall cognitive functioning in areas including problem solving, reasoning, creativity and concentration (e.g., Escoffer et al. 2010; Gueguen et al. 2010; Koutsoupidou and Hargreaves 2009). As a daily consuming activity, this further suggests that music listening may harbor more benefits than just mood alteration and enjoyment (e.g. Bruner 1990; Juslin and Vastfjall 2008; Juslin et al. 2008; Lacher and Mizerski 1994; North et al. 2004). Indeed, based on this literature on cognitive functioning, music may affect consumers in more profound ways. The potential for this type of effect is explored in this research via the use of both familiar and unfamiliar music.

### *2.3.2 Perception and cross-modal perception.*

In the area of music and perception, various sub-streams of research including time perception (e.g. Droit-Volet et al. 2010), the role of visual cues (e.g. Cohen 1993; Connell, Cai and Holler 2013; Thompson, Graham and Russo 2005), intersubjective perception (e.g. Watt and Quinn 2007), and cross-modal perception (e.g. Crisinel and Spence 2009; Grahn et al. 2011; Koelsch et al. 2004; Spence 2012; Yeoh and North 2012) have emerged.

While most of these works stray from solely focusing on music, and instead look at auditory cues (e.g. manipulating sounds), important findings help create a rich understanding of the overall music experience. Specifically, research on time perception and visual cues offers some examples of how sounds can be interpreted in a multi-sensory manner in a rather consistent way across individuals. For example, Droit-Volet et al.

(2010) found that the estimation of the duration of a melody was consistently judged as shorter than non-melodic stimuli. The authors attribute this to an attention-based hypothesis, which suggests that stimuli that attract attention simultaneously detract awareness from other things, including the passage of time. These findings however, stand in contrast to research in the marketing literature that finds opposite effects. As I discuss in a later section on music and marketing, a study by Kellaris and Kent (1992) finds that pleasurable music does indeed capture attention, but that this in turn also attunes people (e.g. increases perceptual accuracy) to how much time has passed. Regardless, whether pleasurable music distracts from accurate time perception or not, the overall reported effects still suggest that music has the ability to significantly alter how time is perceived.

In a different example, Connell et al. (2013) found that specific melodic pitches (i.e. low vs. high) are represented visually in vertical space. When the pitch is high, it is represented as being “higher” along a vertical axis compared to when the pitch is low. Thompson and Russo (2007) also provided a similar conclusion in an earlier investigation of musicians’ facial changes and muscle contractions. They found that not only did specific facial expressions imply information about the directionality of the pitch or singing (e.g. octave changes), but higher pitches are communicated via contraction of the cricothyroid muscle, which visually signals musical changes (e.g., high to low pitch) to audience members (Thompson and Russo 2007).

These aforementioned works provide evidence that we use a range of senses to make sense of the sounds we hear. Specifically, both music (organized, melodic sounds) as well as general (unorganized) sounds influences our visual and time perception.

Whether these effects are found in skewed perceptions of time lapses, or in the way that sounds are represented in visual space, it appears that music (and auditory stimuli) is seldom processed in isolation. This is important to the present investigation as it further suggests that our auditory processing works in tandem with other sense-making (i.e. imagery), making the music experience much more holistic.

Other work on cross-modal perception has ventured into areas that include music's interaction with perceptions of taste (Crisinel and Spence 2009; 2010a; 2010b; Spence 2012a), branding (Yeoh and North 2011), food consumption and packaging (Spence 2012a), and smell (Crisinel and Spence 2012). This body of work has moved from a previously dominant focus on the interaction of visual/auditory perception (above) (e.g. Thompson and Russo 2007; Connell et al. 2013) to one that incorporates a variety of other modal and sensory areas.

For example, through a series of studies using an Implicit Attitude Test (Greenwald et al. 1998), Crisinel and Spence (2009; 2010a; 2010b; 2012) and Spence (2012a; 2012b) showed that bitter and sweet tastes are associated with a high pitch, while salty and sour tastes are associated with a low pitch. They further found that specific musical instruments are associated with these pitches, where high pitch music is most readily identified with the clarinet, piano, trumpet and violin, while low pitch music is more readily identified with the bassoon, piano, bass trombone and cello (Crisinel and Spence 2010a; 2010b).

In a recent extension of this work, findings showed that specific tastes (like bitter, sweet, sour, salty, citrus and vanilla) are each distinctly associated not only with precise pitch and instrumentation, but also with specific tempo (musical speed) (Spence 2012a).

Bitter taste is associated with slow paced music, and a sweet taste is associated with a combination of slow paced, pleasurable (consonant) music, and a soft volume. On the other hand, citrus is associated with an upbeat, syncopated rhythm, and a bright and sharp instrumentation, while a sour taste is associated with unpleasurable (dissonant) and fast paced music.

As this work on perception and cross-modal perception shows, music and sounds have very real associations and downstream effects. In light of the present research, the manner that music will be investigated includes opportunities for cross-modal exploration, particularly through free thought listing. By allowing participants to engage in free writing during and immediately after the music listening, cross-modal aspects including visual interpretation (imagery) can be captured.

### **2.3.3 Emotions.**

The final section in this broad review explores research on music psychology and emotions. The assertion that music and emotions co-occur is universal (e.g. Lewis 2002; Lundqvist et al. 2009; Sloboda 1991; 1992). Some of the most significant research contributions to the area of music and emotions as they relate to the present research on the music experience, include: i) the emotional qualities of musical sounds, ii) the cognitivist-emotivist debate, and iii) the emotional experience of listening to music. The following discussion will address each of these in turn.

*i) The emotional qualities of music.* There is general agreement that technical aspects of music composition (i.e. major and minor mode or slow and fast tempo) can elicit rather consistent emotional reactions. This is not to suggest that this occurs without

exception (see discussion by Sloboda 1992), but specific sounds are known to trigger rather universal emotions. For example, major mode, fast paced music is typically rated as happy and cheerful, while minor mode, slow paced music is rated as sad and melancholy (c.f. Bruner 1990; Lewis 2002). These self-reported emotional reactions have been further corroborated with physiological and neurological evidence (see Levitin and Tirovolas (2009) for a review). For example, pleasurable (vs. unpleasurable) music is processed in the brain area associated with the reward system, which in turn has shown to increase dopamine and opioid levels (Lewis 2002; Lamont 2011). Further, physiological measures including galvanic skin conductors, heart rate, cortisol levels and saliva demonstrate that pleasurable music (e.g. operationalized as major mode and fast paced) is consistently associated not only with feelings of happiness, but also with heightened bodily responses that accompany the overall emotional experience (Levitin and Tirovolas 2009; Witvliet and Vrana 2007).

Other work on emotion and physiological responses to music has promoted the arousal-hypothesis (also sometimes referred to as the arousal-and-mood hypothesis) (e.g. Khalfa et al. 2002; Konecni, Wanic and Brown 2007; Rickard 2004; Schellenberg 2005). This hypothesis suggests that auditory stimuli (such as music) trigger an immediate physiological response to accompany an emotional appraisal (c.f. Khalfa et al. 2002; Schellenberg 2005). In fact, Khalfa et al. (2002) has shown that our bodies require very little time (0.25 seconds) to react to and appraise music stimuli. These physiological responses further manifest as “strong emotions” (Goldstein 1980) or as thrills, chills and changes in heart rate, particularly in response to highly pleasurable and aesthetic music stimuli (Grewe et al. 2007a; Grewe et al. 2007b; Konecni et al. 2007; Rickard 2004). Part

of this dissertation captures how individuals feel when experiencing music, and how these feelings influence their subsequent decisions, both with experimentally as well as with self-chosen music.

*ii) The cognitivist-emotivist debate.* Any discussion on music and emotions requires a careful understanding of a long-standing debate regarding how, precisely, music and emotions co-occur. This causality debate presents two opposing sides: the cognitivists and the emotivists.

The cognitivist-emotivist debate centers on a disagreement about whether music can elicit specific emotions (emotivist) in its listeners, or whether music conveys specific emotions (cognitivist). For example, cognitivists believe that the sadness in music (e.g. a slow tempo and minor mode) results in sad feelings because the listener evaluates the music as comprising of “sad” qualities (Kivy 1980, 1990, 2001). This position is closely aligned with appraisal theory that suggests that emotions are a result of a cognitive appraisal of a target (e.g. Smith et al. 1993).

On the other hand, emotivists believe that sad music makes you sad because it actually evokes these feelings (without the need for cognitive appraisal). Both Juslin and Västfjäll (2008) promote this latter position in their work on the various mechanisms that explain how emotions can be induced through music. These mechanisms are suggested to be evolved brain functions, and include: 1) brain stem reflexes (i.e. reacting to dissonant sounds triggers negative emotions), 2) conditioning (i.e. to a particular musical genre), 3) contagion (perceptions spread to feelings), 4) visual imagery (images are evoked by music which induce emotions), 5) episodic memory (i.e. a particular piece is associated with a specific event and emotions), and 6) musical expectancy (emotion is derived from a

specific feature in the music such as a surprising octave change). While these six mechanisms are not specific to music psychology research, they have been useful in furthering the investigation of the role of emotions in music as well as the present debate (e.g. Juslin et al. 2011; Koelsch 2010; Lundqvist et al. 2009). Still, while some believe that there is enough evidence for the emotivist perspective (e.g. Hunter and Schellengberg 2010; Juslin and Vastfjall 2008), and others argue that the cognitivist perspective is still strongly supported (e.g. Grewe et al. 2007), a recent review by Eerola and Vuoskoski (2013) sheds light on important methodological inconsistencies among these works rendering comparisons inappropriate. While this debate and the preceding section on the emotional qualities of music are important and prominent aspects of research on music and emotions, they are particularly relevant to the present work as evidence that emotions are an irrefutable part of the music experience. In the present research, emotions are discussed in the phenomenological study, and are measured and manipulated in the experimental work.

*iii) Emotional experiences of music listening: Strong experiences to music.*

Researchers have studied emotions associated with nostalgia (e.g. Barrett et al. 2010), memory (e.g. Stalinski and Schellenberg 2013), well-being (Lamont 2011; 2012) and strong experiences (Gabrielsson and Wik 2003), to name a few. This review will focus primarily on strong experiences (Gabrielsson and Wik 2003), and the manner in which this body of work has informed research on how music is experienced (Sloboda 1991; 1992) particularly as it is important to the overall topic of this dissertation.

Strong reactions to music are defined as exceptional experiences of music listening (Gabrielsson and Wik 2003). The basic premise of this definition is that such

experiences transcend the everyday, to be remembered as highly exceptional or unique. Gabrielsson and Wik (2003) began the “Strong Experience to Music (SEM) Project” with the intention of capturing musical experiences that resemble concepts such as Maslow’s (1968) “peak experience”, Privette’s (1983) “peak performance”, and Nakamura and Csikszentmihalyi’s (2002) “flow” (see Appendix C for a review of these different constructs). While they argue that SEM is not captured entirely by any of these concepts, they do suggest that it is most closely tied to Maslow’s “peak experience” (Gabrielsson and Wik 2003).

The SEM project collected over 1000 interviews and written documents that asked participants to describe a “strong experience with music”. Content analysis provided 7 main themes that capture what strong experiences with music are like. These themes are: 1) General characteristics of the experience, 2) Physical reactions and behaviours, 3) Perception, 4) Cognition, 5) Feelings/Emotions, 6) Existential/transcendental aspects, and 7) Personal and social aspects (Gabrielsson and Wik 2003). The majority of participants indicated that they had these experiences while listening to music (as opposed to performing it) and that it was to familiar music. This informs the present research and motivation to include participant chosen songs (see Study 1- Phenomenology and Experiment 2), particularly as it provides a more naturalistic approach to exploring the music experience.

Other work that has used strong or exceptional experiences to music has involved an exploration of its emotional effects on listeners (Sloboda 1991; 1992), and its relationship to well-being (Lamont 2011; 2012). For example, Sloboda (1991) tested a claim by Meyer (1956), an early psychologist, that people cannot pinpoint exactly which



part of a musical passage provides the most significant emotional response. Using trained musicians, Sloboda (1991) found that in fact it is relatively easy to recall such exceptional emotional experiences to music, and later on, showed that while this is not limited to trained musicians it is more common when the music is familiar (Sloboda 1992).

Recent work on SEM by Lamont (2011; 2012) focused on both listeners and performers of music to understand how resulting emotions influence subjective well-being. Lamont's research is anchored in positive psychology (c.f. Seligman 2002; Ryan, Huta and Deci 2008), which suggests that there are two perspectives to achieving well-being (hedonic and eudemonic). Lamont (2011, 2012) found that SEM are most dominant among listeners and performers of live music events and during both familiar and unfamiliar music. He further demonstrated that well-being is achieved primarily via the eudemonic route, implying that happiness via music occurs in a manner that supports 1) engagement with a focal activity, and 2) identification with something larger than the self (Lamont 2012; Seligman 2002; Ryan et al. 2008).

While the present research does not explicitly include measures pertaining to SEM, emotional responses to the music are indeed captured. In addition, as will be detailed, aspects of cognition and perception are also included via the main theoretical lens of this research, transportation theory, which together includes aspects of imagery, emotion and cognition/attention. The purpose of the preceding review is to demonstrate how literature on the psychology of music has provided important insights for the study of how consumers experience music in their daily life. The intent was not to provide an exhaustive review. Rather, the works discussed above were included to provide some

necessary background to the literature in music and marketing, and to act as conceptual parameters for the present research.

In the following section, I provide a more focused review on music as it has been researched from a marketing perspective. I begin with a review on the traditional manner in which marketing has investigated and used music, and then move to a discussion on the effects and consequences of music listening.

## 2.4 Music and Marketing

### *2.4.1 Music and its components*

Amongst marketing researchers, music has often been investigated and understood as a combination of three important components: modes/tones, texture and tempo (Bruner 1990; Kellaris and Kent 1992; 1993). Modes can typically be positively valenced or negatively valenced. A positively valenced mode is technically operationalized with major chords and results in positive affect. On the other hand, a negatively valenced mode is technically operationalized with minor and atonal chords and results in negative affect. The texture of sound can be changed by addressing aspects of timbre (the sound quality found in different instruments) as well as orchestration (the configuration of instruments in a composition) (Apel 1973; Bruner 1990; Kellaris and Kent 1993).

Finally, tempo or speed is cited as the most basic and manipulable component of music (Apel 1973; Bruner 1990; Holbrook and Anand 1990; Kellaris and Kent 1992; 1993). Fast tempos are generally associated with positive, happy and joyful emotions, while slow tempos are associated with sad and melancholy emotions. Furthermore, multiple studies have demonstrated the existence of a nonmonotonic hedonic curve for

affect and tempo. That is, as tempo increases, affect ratings peak at approximately 70-110 beats per minute before decreasing (Dowling and Harwood 1986; Holbrook and Anand 1990). (For a lengthier discussion on the various technical manipulations of music and its effects on affect and mood see Bruner (1990) as well as Kellaris (2008).)

#### *2.4.2 Attention-grabbing qualities of Music*

Kellaris and colleagues (1989, 1992, 1993) and Grewal and colleagues (1994, 2003) remain among the more prominent scholars to have focused on the role of musical influences in a consumer context. In a seminal article in 1992, Kellaris and Kent demonstrated that music can be used to alter affective states and temporal perceptions. They found that individuals kept waiting preferred background music in major (vs. minor and atonal) modes, however, this also led them to believe they had been waiting longer than the actual time interval. Grewal and colleagues similarly reported that background music, as one component of the store environment, influences perceptions of the store atmosphere, merchandise quality and service quality, which in turn directly influence patronage related intentions and the store's image (Baker, Grewal and Parasuraman 1994; Grewal et al. 2003).

This attention-focused argument was recently applied by Noseworthy and Finlay (2009) in their work on ambient music in casino environments. In their work, Noseworthy and Finlay showed that the presence of ambient music (characterized as music with no discernable beat) contributed to loss of time awareness, suggesting that music can also be used to distract and divert attention. This finding further suggests that the quality of music (e.g. ambient vs. rhythmic music) may have differing effects on attention. In Kellaris and

Kent's (1992) work, for example, preference for major mode ("liked") music resulted in increased time waiting perceptions rather than a loss of time awareness, as the affectively preferred music acted to draw in rather than divert attention.

A final component of the attention-grabbing aspect of background music involves the issue of congruence between the music and the environment or focal object. Kellaris, Cox and Cox (1993) concentrated on the effects of music-message congruence to assess whether music promotes or detracts from advertised message content. As per the attention-focused perspective, attention grabbing music was most successful in ad recall and message and brand awareness when there was congruence between the music and the message (Kellaris et al. 1993). (Here, congruence was assessed as the extent to which the instrumental music elicited meanings (thoughts, images, feelings) that were congruent with those elicited by the ad message.) Otherwise, high attention grabbing music detracted from the message and distracted the individual from processing the advertised content. In a different example, MacInnis and Park (1991) looked at the use of music to arouse emotional congruence ("fit") with an ad. They manipulated personal relevance of the ad object (high vs. low), and found that this impacted the manner in which the music was used in judging the ad. Specifically, the more personally relevant the ad was, the more that the congruence of the music with the ad influenced attitudes and beliefs towards the ad. In other words, the need for congruence was higher when more personal relevance was involved, as there was increased attention to the message and its execution, which in turn affected overall attitude toward the ad.

A final study by Furnham and Bradley (1997) further confirms this attention-grabbing conclusion, but focuses on the arousal hypothesis and the use of workplace

music. The arousal hypothesis, in its most simplified form, suggests that individuals have differing levels of arousal thresholds, and that these thresholds affect how well they can function under various stimulating situations. In their study, Furnham and Bradley (1997) found that introverts perform worse than extroverts on memory recall and reading comprehension tests when music is played in the background. The authors suggest that extroverts have a higher optimum arousal threshold than introverts, which in turn results in the ability to cognitively attend to the music while still maintaining attention on other cognitive tasks. Based on this evidence as well as the evidence provided on cognitions in the preceding Music and Psychology section, music not only attracts and/or diverts attention, it also differentially affects cognitive functioning.

## 2.5 The Consequences of Music Listening

### *2.5.1 Affect and Arousal*

Amongst the various consequences of hearing music, affect and arousal are the typical constructs measured and assessed (Holbrook and Anand 1990; Kellaris and Kent 1992; Khalfa et al. 2002; Witvliet and Vrana 2007). However, there appears to be overlap in the use of the various terms used to describe sound qualities and their consequences. For affect, these include: emotion, mood, pleasure and valence. For arousal, these include: perceived activity and situational (contextual) arousal (Holbrook and Anand 1990). Most authors would agree there are distinct differences between affect, emotion, and mood. For example, while affect is often defined as a diffuse, lasting sentiment, emotion is defined as a brief but intense response to changes in the environment (Juslin et al. 2008; Mehrabian and Russell 1974). Further, mood is typically defined as a long-lasting and

stable emotional state (Mehrabian and Russell 1974). According to a seminal paper by Russell, Weiss and Mendelsohn (1989), affect can be captured via two independent dimensions in their Affect Grid; these are pleasure and arousal. However, the use of the terms affect and arousal without additional elaboration is still commonly found. Among the papers to look at music qualities via the three primary criteria (tones, texture and tempo), valence and arousal are the two main orthogonal constructs used (e.g. Di Muro and Murray 2012; Khalfa et al. 2002; Kellaris and Kent 1993; Mehrabian and Russell 1974; Russell et al. 1989; Witvliet and Vrana 2007).

### *2.5.2 Empirical Evidence on Affect and Arousal*

The various downstream effects of musical influences investigated in the literature range from physiological responses to affective ratings of the advertised message (as discussed above). However, what appears to be a consistent factor for inducing the desired responses is the manipulation and measurement of both affect and arousal. As previously described, arousal is measured alongside affect and is defined as a physiological response (Russell et al. 1989). We are more sensitive to arousal (i.e. volume changes) than affect manipulation (i.e. major mode vs. minor mode music), and our nervous system only requires an exposure of 0.25 seconds to elicit a reaction (Khalifa et al. 2002). This physiological response can be attributed to our fight or flight tendencies and response system.

Beyond the established positive reactions to music in the major mode (typically described as positively valenced or positive in affect), the interaction of arousal with affect has also been investigated. A consistent finding is that high arousal with positive

affective music results in increased levels of smiling, liking, and a slower heart rate deceleration (Witvliet and Vrana 2007). In addition, this particular interaction elicits a greater desire to affiliate in a buyer-seller relationship within a service context (Dube, Chebat and Morin 1995).

Works by Holbrook and Anand (1990) and Di Muro and Murray (2012) similarly focus on arousal and its effects on preferences, but look at the need for congruent products or activities. For example, Holbrook and Anand (1990) manipulate arousal by having participants work on anagram puzzles (high arousal) vs. lay in a resting state (low arousal). Their results demonstrate an increased preference and positive affect ratings for faster tempo (i.e. 108 beats per minute) jazz music when in a high arousal state. A similar finding is echoed by Di Muro and Murray (2012) in their study on high vs. low arousal music (also manipulated by tempo) and preference for an energy drink (a high arousal product) vs. an iced tea drink (a low arousal product). In these papers, exposure (through fast tempo music) or manipulation (through anagram puzzles) of high arousal consistently resulted in greater preference for high arousal-related activities or products. Still, it is important to note that a nonmonotonic relationship exists between affect ratings and its interactions with arousal manipulations (i.e. tempo) (Dowling and Harwood 1986; Holbrook and Anand 1990). In other words, such pleasure or positive affect tends to peak at a moderate arousal level and then recede as arousal levels increase.

Separating the effects of arousal from affect, one known study has shown that arousal can be the more immediately influencing auditory quality. In an early paper by Smith and Curnow (1966), the authors varied the volume of music playing in two grocery stores. Their findings demonstrate that “loud” vs. “soft” music resulted in greater

spending per person-minute. Smith and Curnow (1966) attribute this to the arousal hypothesis that posits that a certain degree of noise increases activity. While the authors do not describe the decibel levels used or other sound qualities typically reported in later music related work, they are among the first to vouch for the importance of arousal as a response to musical cues.

As a result, in addition to valence of sound (which is shown to influence affect), arousal remains one of the key determinants in assessing how musical cues will be received. Research supports the notion that musical cues which are loud, fast and in the major mode (positively valenced) create high arousal and positive affect in individuals, while musical cues that are soft, slow and in the minor mode result in lower affect and arousal. These varying affect and arousal levels in turn have the ability to influence how individuals perceive their environment and behave.

### *2.5.3 The Effect of Music on Consumption Behavior*

Atmospherics may be one of the most well known areas that combine consumer behaviour and music research. Specifically, some of the most widely-cited literature that has focused on atmospherics or servicescapes (Kotler 1973; Spangenberg et al. 2005; Turley and Milliman 2000) has used contexts such as grocery, retail and restaurant environments to understand how the consumption of soft drinks, alcoholic beverages and food can be manipulated by music (McCarron and Tierny 1989; Milliman 1982; 1986). These studies primarily varied in whether they manipulated tempo or volume, but all demonstrated that music can have differing effects on consumption patterns. Specifically, increasing volume levels and thus arousal, resulted in increased soft drink consumption



(McCarron and Tierny 1989), while a slower tempo in the background music resulted in prolonged time spent dining (Milliman 1982, 1986). For example, McCarron and Tierny (1989) varied volume level across three groups of participants (0 dB, 70 dB and 90 dB), where 70 and 90 dB are deemed to be soft and loud volumes respectively. The authors demonstrated that the louder the volume, the more soft drink consumption (in ml) was undertaken. In contrast, manipulation of tempo demonstrated that the slower the tempo (< 72 beats per minute), the longer restaurant patrons dined and grocery store patrons lingered, and thus the more money was spent on food and alcoholic beverages (Milliman 1982, 1986). While these examples are brief, they also provide some clues as to how marketing scholars have used music to elicit specific consuming behaviors. Further, while these studies do not directly measure arousal levels, they do demonstrate that arousal levels and music tempo have valid and reliable effects on behaviour.

## 2.6 Research Program Overview

As the preceding literature review demonstrates, there has been no shortage of research investigating the various components and effects of music on human behaviour outside of the marketing discipline. However, as consumer behaviour researchers we still don't know how music is truly experienced by the consumer. That is, instead of relying on participants to inform us on their musical experience with newly created, unfamiliar music, this research seeks to understand how individual consumers experience music of their choosing, what the psychological experience is like, and how such experiences influence important decisions inherent in day to day marketplace behaviours.

In summary, I base this research program on three broad research questions. 1. How do consumers experience music, and particularly musical excerpts of their choosing? 2. What is the psychological experience of music listening like and how might it affect subsequent consumer decision-making? 3. What individual well-being benefits exist, if any, by focusing on music as a form of experiential consumption?

This program of research utilizes a mixed-method approach and draws on traditional consumer behavior literature as well as the experiential consumption literature (c.f. Holbrook and Hirschman 1982). I begin with a phenomenological investigation of how individuals consume favorite experiences and use music as the context. This investigation concludes with a thematic model that provides motivation for the theory, Narrative Transportation, to be used in the subsequent experimental work.

In the experimental work, my research validates the existence of auditory transportation, examines how pleasing vs. non-pleasing music results in differing transportation levels, and addresses important theoretical and managerial consequences of the transporting music experience.

## Chapter 3

### 3 Part 1: A Phenomenological Investigation of the Personal Music Experience

#### 3.1 Introduction

Why would favorite songs require special treatment to be listened to? Why would someone refuse to watch their favorite movie on endless repeat? These examples show that while we are drawn to experiences that we love and favor, we are also aware of the complexity that such experiential possessions contain. Experiential possessions are possessions that do not revolve around any immediate tangible component,. Songs, literature, films, events, festivals, places and even restaurants can be thought of as experiential possessions. These possessions may require some physical counterparts, but ultimately it is the experience that is the focus of consumption.

Despite all we have learned about consumer possessions, this discussion has remained primarily limited to physical objects. In particular, the literature on consumer possessions (e.g., the literature on object-self congruity and the extended self) has maintained a focus almost entirely on material possessions. This, I believe, has left an important knowledge gap with respect to understanding consumer experiences as possessions.

Recent calls to expand knowledge on consumer well-being (e.g. Mick 2006; Ozanne 2011) suggest that consumer behavior researchers have yet to fully deliver an in-depth understanding of this. Recent work on happiness suggests that experiences offer a

better way to achieve prolonged levels of happiness and satisfaction (Dunn, Gilbert and Wilson 2011, Gilbert 2006; Nicolao, Irwin and Goodman 2009;). I situate the present research in this area, with the objective of demonstrating how experiences as possessions can offer unique implications for the study of consumer well-being. I acknowledge the work that has provided rich descriptions of unique experiences such as Burning Man (Kozinets 2002) and white water rafting (Arnould and Price 1992), yet stress that my work focuses entirely on experiences as favorite possessions. That is, instead of speaking generally about all experiences such as all the trips one has taken or all the birthday parties one has held, my focus is on exceptional or favorite cases of such experiences. Much like the work on favorite material possessions by Price, Arnould and Curasi (2000), Mehta and Belk (1991), Richins (1994), and Wallendorf and Arnould (1988), I freely interchange the terms “special”, “cherished”, “favorite” and “priceless”. In addition, while I acknowledge that material goods may have embedded experiential elements, as for example, the purchase of a new car would, here I focus solely on experiences (e.g., travel, theatre, anniversary parties).

The present research narrows the discussion on favorite experiential possessions to one context. Specifically, I use the context of favorite songs as an area of study as it provides a way to explore this experience with many participants in an immediate and direct manner. Such a context also provides a meaningful basis for extrapolating this data and developing insights for the broader discussion of favorite experiential possessions as a whole. I anticipate that these findings will speak to other special experiential possessions that allow for some degree of reconsumption, such as favorite annual events, cherished home movies and special places. By developing an interpretive framework for

favorite experiential possessions, I hope to add to the discussion on consumer well-being and happiness, and the importance of emphasizing experiential consumption in lieu of material goods.

## 3.2 Special Material Possessions and Special Experiential Possessions

Favorite possessions are said to be special independent of their exchange value (Holbrook 1994; Klein and Hill 2008; Price et al. 2000). For example, in the face of forced material disposition, Jewish Holocaust prisoners were known to show considerable attachment to sentimental and personal items rather than those with high monetary value (Klein and Hill 2008). In another example, when elderly consumers were faced with the task of disposing of favorite material possessions, they did so through careful consideration of which familial tie would best care for the object (Price et al. 2000).

Favorite (material) possessions embody unique elements not easily found in their more “mundane” counterparts (Ahuvia 2005; Belk, Wallendorf and Sherry 1989; Curasi, Price and Arnould 2004; Lastovicka and Sirianni 2011). As such, they are often deemed special by the individual and are treated with reverence for their sacred properties (Belk et al. 1989; Curasi et al. 2004). Literature on the sacred elements of favorite material objects suggests that such objects must be set apart from the everyday, ordinary world; that they must be treated with care and sacrifice; that they can positively “contaminate” people, places and things through contact; and that their power is kratophanous (has both good and evil powers) (Belk et al. 1989). Still, an understanding of favorite experiential possessions remains missing (with exception, see Zauberaman, Ratner and Kim 2009).

A good starting point is to recognize that when polled, consumers demonstrate stronger ties to objects with memories and symbolic meanings versus objects with specific functional properties (Wallendorf and Arnould 1988). Perhaps a more telling example is that of homeless women who value their memories and past experiences (Hill 1991), over and above more functional or valuable physical objects. While this group of consumers is effectively unable to participate in the market, nor in the ownerships of goods, their dire situation demonstrates precisely how personal experiences and objects infused with symbolic meaning are cherished above all else.

Such examples resonate deeply with the recent emphasis on consuming experiences over material goods as a route to greater overall happiness (c.f. Dunn et al. 2011; Gilbert 2006; Nicolao et al. 2009; Van Boven and Gilovich 2003). Specifically, this research has emphasized the overall importance of consuming experiences in and of themselves. Some of the reasons for opting for experiential over material purchases in pursuing happiness are: the ability to (mentally) “revisit” the experience at a later time, the ability to recall (and enjoy) experiences better than material goods, and inaccurate estimates of how much happiness can be derived from material goods over experiences (Dunn et al. 2011; Nicolao et al. 2009; Van Boven 2005; Van Boven and Gilovich 2003). Most importantly though, by opting for the consumption of experiences over material goods, hedonic adaptation takes much longer and arguably, results in consumers enjoying prolonged feelings of happiness (Dunn et al. 2011; Nicolao et al. 2009).

Musical experiences offer one avenue for reaping the hedonic benefits of this prolonged hedonic adaptation. Some recent statistics place music listening as one of the

more prominent activities in one's day (whether as a supplementary or focal activity) (North, Hargreaves and Hargreaves 2004).

This research uses a favorite possession in the form of a musical experience as the context, however findings are expanded to inform the broader areas of cherished consumer experiences as possessions, and consumer well-being. I am interested in uncovering the essence of what it is like to consume something that is a favorite experiential possession in an effort to contribute not only to the discussion on experiential possessions, but to also develop a better understanding of how such possessions can improve consumers' lives.

### 3.3 Experiential Consumption

In my preceding literature review I offer a discussion on experiential consumption and the various typologies and models used by researchers working in this area. As a result, the following will only briefly highlight how experiential consumption will be used as a conceptual base for the present study.

Experiential consumption is an area of study that looks at the symbolic, multi-sensory, hedonic, and intrinsically satisfying aspects of consumption (Holbrook and Hirschman 1982). It is also a term that describes the intangible symbolic aspects that are embedded in much of the market exchanges taking place today (Bagozzi 1975; McCracken 1986). Much like the initial conceptualization by Holbrook and Hirschman (1982), I view experiential possessions as vehicles that deliver intangible, symbolic and hedonic value.

Currently there is some understanding of both the antecedents as well as the consequences of consuming experiences. In the area of antecedents, researchers have looked at what motivates and drives the consumption of experiences over material goods (Experiential Buying Tendency Scale, Howell, Pchelin and Iyer (2012), and Motivation for Experiential Buying Scale, Zhang, Howell and Caprariello (2013)) as well as what the experiential decision making process is like (Kwortnik and Ross 2007). In the area of consequences, researchers have focused on the benefits and rewards, such as prolonged happiness of consuming experiences over material goods (e.g. Nicolao et al. 2009; Van Boven and Gilovich 2003). However, an examination of what it is like to experience an experiential possession remains lacking. Holt (1995) for example, suggests that consuming as experience is about accounting (applying an interpretive framework to make sense of an event), evaluating (using a framework to judge the event), and appreciating (responding emotionally to the event). However, work building upon the experiential consumption approach (Holbrook and Hirschman 1982) (e.g. the TEAV model by Hirschman and Holbrook 1986) suggests that experiences involve a more holistic integration of thoughts, emotions, actions and evaluations. In the present study, these a priori components provide guidance regarding the types of questions participants will be asked.

To better understand favorite experiential possessions, I use music. This context allows for a broad range of participants and music genres to be included, yet also meets the boundaries put forth by the meaning “experiential possession”. That is, music consumption can be investigated as a favorite experiential possession deemed by the



individual to be among their favorite experiences (intangible goods) to consume. Note that in this conceptualization, I do not include and discuss material objects.

### 3.4 Music Listening

Music listening provides important hedonic benefits to the consumer (Juslin et al. 2008; North et al. 2004; Sloboda 1999). According to the majority of researchers in music psychology, music listening in daily life is typically used for enjoyment purposes (Juslin et al. 2008; North et al. 2004; Sloboda 1999; Sloboda et al. 2001). Further, while music listening is normally not the focal activity in one's day (North et al. 2004; Sloboda 1999; Sloboda et al. 2001), it nonetheless is used as an experiential enhancer (Sloboda 1999). In fact, only 26.4% of reported music listening events actually describe music listening as being the focal activity (North et al. 2004). The remainder of the time, participants report using music for supplementing other activities (North et al. 2004). For example, music has been used for purposes of mood regulation, as a source of relaxation, and most often as a tool for accompanying everyday mundane tasks such as personal maintenance, travel and active leisure (Bruner 1990; Hung 2001; Juslin et al. 2008; Kellaris and Kent 1992; North et al. 2004; Sloboda et al. 2001).

Most interestingly, music listening appears to be a catalyst for change. That is, its inclusion as an accompaniment to an activity suggests that it has the ability to provide some added pleasurable experiential benefits that would otherwise not occur. Among some of the beneficial changes that music listening provides, its emotional, physical and psychological effects are often the most widely cited.

First and foremost, music is widely recognized for its *emotive* qualities (Hung 2001; Juslin et al. 2008; Khalfa et al. 2002; MacInnis and Park 1991; North et al. 2004). There is general agreement on the emotional qualities of music, yet researchers have debated on the direction of this causality and whether music simply represents various emotional qualities (the Cognitivist perspective), or whether it actually induces these emotional reactions in the listener (the Emotivist perspective) (Hunter and Schellenberg 2010; Juslin and Västfjäll 2008; Kivy 2001; Levitin and Tirovolas 2009). This debate remains today, and a more thorough review is presented in the section on Emotions in the Music and Psychology literature review.

Beyond emotions, music has been shown to produce a combination of pleasurable *physical* reactions and emotions in its listeners. Typical reports of physical reactions include thrills and chills which manifest as shivers that start in the back of the neck that then spread down the back and to the arms (Konecni, Wanik and Brown 2007; Grewe et al. 2007). More importantly, when combined with emotions, such physical reactions give rise to what has been coined “strong emotions” (Gabrielsson 2001; Goldstein 1980; Grewe et al. 2007). Strong emotions are suggested to occur when an individual’s arousal level is intensified (often by highly appealing and surprising harmonies and textural changes), thus activating physiological responses including chills, increased heart rate, increased blood pressure and respiration rate, as well as the release of arousal hormones such as cortisol (Grewe et al. 2007; Rickard 2004). Since the elicitation of strong emotions (and their corresponding chills) requires a surprised reaction to the music, such occurrences are rather rare and can be habituated to (Grewe et al. 2007). Still, according to Goldstein (1980) and Grewe et al. (2007), music is one of the best elicitors of strong

emotions via arousal, and this in turn has demonstrated important benefits for the individual's physiological and emotional state.

A final benefit of musical listening can be described as providing *psychological* benefits to the listener. In addition to the reported emotional and physical outcomes attributed to music, music listening has been shown to offer psychological benefits such as decreased anxiety, pain and discomfort. For example, in studies within the hospital context, exposure to music helped reduce anxiety and pain related to surgery (McCaffrey and Good 2000) as well as reduce the length and frequency of crying in premature infants (Keith, Russell and Weaver 2009). Such studies indicate that music not only serves as an emotional stabilizer, but can also offer therapeutic benefits that would otherwise be addressed with more traditional medicinal solutions.

The purpose of this research is to obtain a rich description of what consuming special experiential possessions is like. Due to the limited amount of research on special experiences, and particularly how these experiential possessions are treated and consumed, I use depth interviews. These depth interviews are conducted with participants willing to share their thoughts about a particularly special experiential possession-favorite songs. The following section details the method used, and following that the findings are discussed.

## 3.5 Method

### *3.5.1 Sample and Interview Procedure.*

In the present interpretive approach, depth interviews were conducted with fourteen members of a university community (students and city residents). Participants

were recruited to participate in exchange for compensation or course credit. Participants were recruited via an ad that asked participants to bring in a song that is among their favorites and with which they would be willing to share and discuss with the researcher. None of the participants indicated that they had professional music training. See Table 1 for a brief summary of the research participants.

In-depth interviews were conducted in private with each participant and lasted about an hour. During each interview, participants were asked a set of broad questions (Moustakas 1994): “Tell me about the song you brought in today”, “What have you experienced in terms of listening to this particular song?” And “What contexts/situations have typically influenced or affected this experience?” Additional probing questions were asked regarding musical tastes and preferences, as well as emotional, cognitive, evaluative and physical responses to the experience. This in turn helped link prior literature on the experiential aspects of music listening, with participants’ own lived experience of the phenomenon. During the interview, participants were also asked to play the song for the researcher while engaging in free thought listing through writing. This served as an additional source of data, allowing participants to further engage with and capture aspects of the lived experience that may have been more difficult to verbally express (Polkinghorne 1989). Interviews were audio-taped and professionally transcribed, resulting in 217 pages of single-spaced pages of text.

**Table 1: Participant Profiles**

<i>Name</i>	<i>Age</i>	<i>Sex</i>	<i>Self-described Ethnicity</i>	<i>Occupation</i>	<i>Chosen Song</i>
Mike	25	M	English Caucasian	Artist	“Stay or Leave”-Dave Matthews Band
Steve	56	M	English Caucasian	Retired	“Thunder Road”-Bruce Springsteen
Peter	51	M	Anglo- Saxon Protestant	Unemployed	“Give Me Love, Give Me Peace on Earth”- George Harrison
Jane	26	F	English Caucasian	Graduate Student	“Highway 20 Ride”-Zac Brown Band
Naomi	20	F	Nicaraguan	Undergraduate Student	“Walking Away”- Craig David
Derek	21	M	Italian Caucasian	Undergraduate Student	“Hey Jude”- The Beatles
Ally	18	F	Malaysian Chinese	Undergraduate Student	“Black to White”-Felix Cartal
Luke	19	M	Mandarin Chinese	Undergraduate Student	“O Sole Mio”- Luciano Pavarotti
Kate	18	F	Caucasian	Undergraduate Student	“Begin Again”- Taylor Swift
Claire	18	F	Chinese	Undergraduate Student	“Slow Dancing in a Burning Room”- John Mayer
Megan	18	F	South Korean	Undergraduate Student	“Boyfriend”- Justin Bieber
Tara	18	F	Caucasian	Undergraduate Student	“The Freshmen” – The Verve
Louis	18	M	Italian Caucasian	Undergraduate Student	“All or Nothing at All”- John Coltrane

### ***3.5.2 Interpretive Procedures.***

This research follows in the interpretive tradition and uses phenomenology to investigate the experience of consuming favorite songs. First, emic (or within participant) observations and findings were made by the first author. Following that, findings were shared and discussed among the authors and then etic (or across participant) three main themes were derived to better understand the phenomenon of experiencing a favorite song, and more broadly, favorite experiential possessions. These themes can be understood as meta-themes that capture several underlying dimensions common across participants. Descriptions of these three main themes serve to describe the overall essence of the phenomenon (Cotte, Ratneshwar and Mick 2004; Lopez and Willis 2004).

I organize findings into these three broad themes: the pleasure paradox, transformation, and social roles and consumption rules. I elaborate on the dimensions of each theme, providing a rich description of the consumption of favorite experiential possessions. Importantly though, note that these themes do not operate independent of each other. Instead, both the second (transformation) and third (social roles and consumption rules) themes I explore below are directly and indirectly guided by the first meta-theme (pleasure paradox).

## **3.6 Findings**

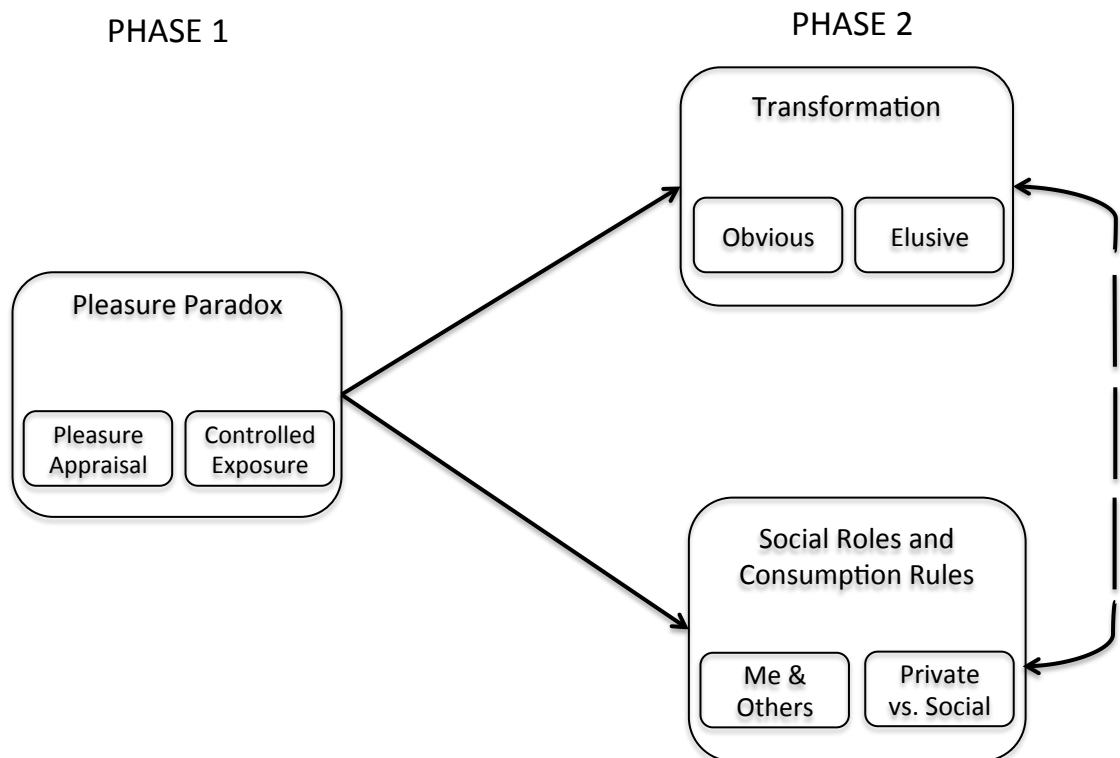
Before I delve into exploring the three themes in detail, it is important to recognize that these themes are organized temporally. That is, consuming favorite experiential possessions is best described as a two-stage temporal process (see Figure 1). I first briefly

describe the process outlined in Figure 1, then move onto a detailed description of the experience at each stage.

First, an appraisal of the special experiential possession is required. I use the theme the *pleasure paradox* to describe what consumers are doing at this pre-consuming stage. The consumer evaluates the aesthetic and hedonic qualities of the music they know, in order to make a choice of what to consume. As I will discuss, they make this choice considering several aspects of the possession, including the need to maintain some control over this possession's likelihood of overexposure, as well as to ensure that it is consumed appropriately. The pleasure paradox means that consumers actively consider and trade-off the pleasure of consumption with the threat of overconsumption. This consideration provides the person with a set of norms and rules for how this possession should be consumed.

The second phase of the model captures rich structural and textural descriptions of what the experience is like. Special experiential possessions can offer remarkably unique psychological effects (transformation), and these effects are influenced by, and also inform, the structural norms required for consuming this type of possession successfully (social roles and consumption rules). The unique psychological effects (transformation) are dependent on the pleasure appraisal and control components of the pleasure paradox, yet they are also highly dependent on the appropriate context and social considerations (social roles and consumption rules). Similarly, the structural and social rules provided by the third meta-theme (social roles and consumption rules), while dictated by the norms and rules provided by the pleasure paradox, also ensures that the psychological benefits (transformation) of the experiential possession are successfully reaped.

This two-phase thematic model offers a unique starting point for a discussion on how special experiential possessions are consumed. I provide a structure for how the experience is consumed, both based on participant recall of their past experience with their special possession, as well as based on data obtained while they are listening to the song itself. The following sections focus on providing more detail about each of the three meta-themes and the six sub-themes.



**Figure 1: Major Themes & Thematic Model**

### 3.6.1 The Pleasure Paradox

The pleasure paradox embodies the multi-sensory pleasures involved in consuming a favorite experiential possession, in combination with the need for carefully



controlling such pleasures. The pleasure paradox consists of *pleasure appraisal* and *controlled exposure*, which together provide a balanced yet paradoxical perspective for how favorite experiential possessions are consumed.

***Pleasure Appraisal.*** Pleasure appraisal involves a person using multi-sensory (e.g., auditory, visual) inputs to appraise how hedonically and/or aesthetically pleasurable the experience is, or has been in the past. Based on the nature of the music context used in this investigation, it captures the most primal reactions of the music consumption experience. Much like the work by Bruner (1990), Holbrook and Anand (1990) and Kellaris and Kent (1993), this theme captures the nearly automatic response to musical stimuli that much of the earlier work on music listening focused on. However, as experiences (and experiential consumption) are by nature symbolic, multi-sensory and hedonic (Holbrook and Hirschman 1982) this first theme also informs the broader study of experiential possessions.

When probing based on why this song choice is among their favorites, participants inevitably turned to explanations based on memory of past experiences with the possession. Descriptions typically began with a focus on how the song sounds and how it is musically constructed. From the instruments used, to the harmonies and tempo, all participants described the fundamental song qualities that first grabbed their attention. Claire (F, 17) provides a powerful assertion for this conclusion.

I mean, if it doesn't sound good, I'm not going to listen to it. But, yeah, I think I would listen...I do listen to how the song sounds first before I actually analyze lyrics.

An overwhelming agreement as to the musical qualities suggests that the technical components of the music form the basic foundation for the experience. This also contributes to understanding the pre-(re)consumption phase of the experiential possession. Without first finding the song musically appealing, it appears that there would be no additional engagement with the experience. Comments depicting this focus on the primacy of sound ranged from descriptions about the beauty of the various instruments used (“Well it’s rock, but it’s more spiritual, there’s some slide guitar on there the notes...the notes aren’t distinctive, they slide, you know...”)(Peter, M, 51), to the use of a piano over guitar as the principle instrument in a Bruce Springsteen song. In each case, participants demonstrated considerable analysis of the technical artistry that each of their chosen songs had. Steve (M, 56), a retired adult with a background in Information Technology, explains that his knowledge of Bruce Springsteen’s typical musical styling contributed to his appreciation of his favorite song, “Thunder Road”.

Thunder Road is an interesting song because there is...Springsteen is associated with guitar rock and it’s a song that he composed on the piano and the piano is the principle instrument throughout it. Which is not unique, but it’s not the norm for Springsteen.

Interestingly, discussion of the song qualities rarely remained technical. From descriptions of the instruments and the musical stylings used, participants launched into how these qualities then created other unique multi-sensory reactions. Luke (M, 19) explains:

I feel tension. I think the music evokes tension, purposefully...Because it’s a longing song basically. I also feel lifted during some parts...Basically, both by the words and by the... ascending melody you

feel...your heart is lightened or somehow you are very...you're, what do you call that? I can't really describe it, just a lifting.

Interviews typically moved in such a way where descriptions of musical qualities consistently led to a range of multi-sensory reactions. These multi-sensory reactions manifested as combinations of imagery and emotions, and in turn aligned closely to specific musical sections. For example, Megan (F, 18) suggests that the specific qualities in the song provide a heightened multi-sensory response to the consumption experience:

Well, in this song, he sounds more manly...I don't know. He just sounds different from his previous songs...I don't know how to describe it. He just sounds like really...like...like sexy. I like the beat. I just like [makes synthesizer sound]. And if it was louder, I would have liked it even more...Yeah. And, the chorus as well. Because I can picture him dancing or something.

Tara (F, 18) echoes Megan's description and explains both how the lyrics, while a rather technical and formulaic part of the song, create powerful emotions and imagery for her.

And I feel like it's almost inspiring, a little bit. It...It's kind of the...One of the main lines is that like, "we were only freshmen." So it's just like we can't be held responsible for what we did. And it's like that kind of was like an inspiring line to me, so it's just like it doesn't matter whatever you did, or whatever happened. It's just like, you were just beginning to know what you were doing and you can keep going from that.

Megan draws personal meanings from a particular lyric, linking it to her private world of experiences as extended self possessions are known to do (Belk 1988). Her emphasis on

one line of lyrics implies that rather than treating it as part of a greater whole, she instead attaches personal significance to a smaller unit that resonates more strongly. Interestingly, other participants did not identify with the lyrics as readily, instead describing how the sounds themselves created inexplicable emotional reactions. For example, Mike (M, 25), a visual artist, explains that he prefers not to know what the lyrics of the song are about. Instead, he prefers to ignore this component and focus instead on the more visceral part of the experiential possession, the instruments.

Sometimes when this song plays there are certain moments in it where I do feel emotional and I have had tears brought to my eyes by the music. And I was thinking about this today because I don't know all the lyrics and I'm not...I'm not sure exactly what he is singing about, I have a gist of it, but it's almost like the lyrics aren't the important part for me. It's the flow of the song, the rhythm, the guitar especially, his vocals, the range in his voice, it just seems to be one of those songs that you want to sing and even though you are singing the words you don't...for me anyways the words aren't connecting to the emotional part of the music...

*Controlled Exposure.* The pleasure paradox also contains an important counterpart to pleasure appraisal, and this is controlled exposure. In nearly all interviews, participants described how careful control of when and how the experiential possession was consumed was necessary, otherwise the possibility of fatigue or boredom would set in. This controlled exposure resonates with Belk et al.'s (1989) work on the sacred and profane rituals of consumption as well as Russell and Levy's (2012) recent work on hedonic

reconsumption. In the present interviews, control elements manifested through structural rules such as the appropriate time of day to consume the experience, as well as through more metaphysical rules such as allowing the experience to appear (somewhat magically) or happen organically. If such a sacralized treatment was not afforded to this special experiential possession, then, according to Peter (M, 51), the song loses its unique experiential capabilities, and with it, its position as the most cherished or special song. As he aptly described:

If you play something too much it gets kind of, you know, blasé, I guess or...it kinda wears, you know,...it wears...it's not as exciting as like the first time.

In other words, special experiential possessions have an element of sacredness. They require special treatment so as to not damage their fragile place of importance. One primary way this is accomplished is by controlling the number of times the song is heard. Much like the element of control attributed to objects becoming part of the extended-self (Belk 1988), here, control is asserted by choosing *not* to consume. One way this is accomplished is by allowing the favorite song to appear on participants' playlists without direct influence. In this way, the potential onset of fatigue with the song is minimized and a metaphysical power is attributed to the experience as a whole. Tara (F, 18) says:

I find that I don't ever really pick this song, it just kind of shows up when I need it, if that makes any sense. When it's like my iPod would be on shuffle, it kind of always is, and when I'm like in a lull, I guess... that song kind of goes on.

The way that the song “just kind of shows up” when Tara “needs it” suggests that she believes there is a higher force that works to determine precisely when it is appropriate, especially if the experience is treated with appropriate sanctity and reverence. Consuming the song any other way, for example by actively seeking it out on the iPod, implies that the experience possession is put at risk. This mistreatment further suggests that the possession’s revered qualities would be stripped and the song would lose its overall sacredness (Belk et al. 1989).

The pleasure paradox theme provides an important combination of understandings of the consumption of favorite experiences. Not only is there a central experiential appraisal of how pleasurable the experience is, but there is also the presence of an overarching metaphysical sacredness that special possessions are known to represent. Belk et al. (2003) suggest that loved (material) possessions demand a sizeable investment of time and energy, and that further, there is greater pleasure in the anticipation and knowledge of the possibility of consumption rather than in the act itself. Here too, loved experiential possessions require unique treatment. This works to set them apart from mundane alternative experiences, yet most importantly, also ensures that these special experiential possessions are treated with due reverence so that such possessions remain a possibility for future consumption.

### 3.6.2 Transformation

Loved objects are said to not only express the self, but to also transform the self in some manner into something new (Belk 1988). Favorite experiential possessions also demonstrate this same transformative capability. The second major theme, transformation,

describes two types of changes that occur during the consumption of favorite experiential possessions. The first is an obvious change, whereby differences such as expressed affect, physical states, and thoughts are easily discernable, and directly attributed to the effects of consuming the cherished experience. The second is an elusive change, which still captures change elements as part of the consumption experience, but which also harbors more indescribable elements that add to the experience's overall uniqueness.

*Obvious Change.* The obvious change theme demonstrates the easily described transformational capabilities that favorite experiential possessions have on their consumers. These changes do not take on one specific form, rather they manifest through new perspectives and emotional alterations, physical reactions such as tears and shivers, or verbal proclamations, such as professing hope and motivation.

Jane (F, 26) who chose a song by the Zac Brown Band, clearly recounts how she underwent a transformation because of this particular song.

The first time I heard it, it was sort of a realization. Like you don't often think about...like the whole divorce experience, like from the perspective of the parent as much when you are the child because you're so focused. And so it was a realization...especially...like my relationship with my Dad was always a little rocky...but it does seem like being able to take someone else's perspective is sort of an eye-opening experience, because you realize...like it helps you let go of anger, maybe.

Other additionally profound examples of the change felt by participants were demonstrated in physical reactions, including tears and shivers or tingles. Two participants, Tara (F, 18) and Naomi (F, 20), both became emotionally overwhelmed and cried during the interview

when discussing how they felt and what they thought about after hearing their song. Tara explains her tears, saying: “I just feel like it’s a build up of emotions that are just like...one minute they’re talking about it and it’s just like, ehbbb and they all just come out. I don’t think it has to do with the song itself. It’s like, I don’t cry when I listen to the song...so I don’t know.” Tara’s description of her outburst fails to really acknowledge why she was brought to tears. Naomi, on the other hand, acknowledges that her tears are a result of the music, but suggests at that moment that it is coincidental:

I cry now obviously I feel sad because I...I don’t know, it brings back like [sniffles]...like whenever I listen to it I’m like sad or something whenever I listen to some of his songs. But right now I just...I don’t feel down, but like...Just like thoughts...he talks about hardships and stuff [sniffles]...my parents are divorced and my Dad and me are like...my Dad married another woman, but my biological mother...sorry...my biological mother and half-sister and they’re back home and stuff, like in Nicaragua. I don’t get along with my step-mother, like it’s hard, like it makes me feel I miss my Mother a lot...

This masking, whether purposefully or not, of such raw emotional reactions resonates with the suggestion that emotions, imagery and fantasies, all important parts of experiential consumption, can often conceal embarrassing or socially sensitive thoughts (Holbrook and Hirschman 1982). It seems that by suppressing or rationalizing away these emotions as something tangential, Tara and Naomi are better able to cope with the experience of sharing their thoughts and the significance of their cherished experiential possession.



Additional examples of obvious change include physical effects that manifested in strong emotions (Goldstein 1980; Grewe et al. 2007), defined as a combination of physical and emotional reactions (like shivers and tingles). For example, Steve (M, 56) proclaimed that certain parts of the song experience brought immediate tingles to his body. In particular, he cites specific lyrics as the catalyst behind his experience:

I got tingles on 'case the promised land'. There's also a line I thought was really nice poetry and "the door's open, but the ride 'aint free". You know, you can get in my car, but you have to take a chance, you know, you have to agree to do that you are going to have to take a chance.

Other clear examples of obvious change appeared through verbal proclamations of newfound drive and purpose. Examples of these changes ranged from calm and hopeful (Kate, Louis, Peter and Claire) to enthusiastic, proud, confident and motivated affective states (Derek, Megan, Luke and Ally). In a sense, a rebirth is achieved. Consumers of their respective special experiential possession are afforded a chance to regain inspiration and enthusiasm. The transformation that takes place here is an obvious one, with clearly identifiable causes and effects (whether affective, cognitive or physical).

*Elusive Change.* The transformation theme also includes aspects of the special consumption experience that are more difficult to articulate. These elusive changes are important to the transformation theme, as they demonstrate aspects of the experience that are not immediately clear, but which still carry considerable insight into each consumer's experience. For example, Jane (F, 26) tries to explain her experience with having just heard the song:

I feel sort of uplifted. I don't really...it's this...I get this sort of feeling like right in my chest that I can't really explain just sort of this, that's not helpful, but...

A similar description is offered by Tara (F, 18).

It's just like it's...it's almost like a journey every time you listen to the song, right? Just like takes you back, and you're like kind of going through everything again. I don't know how to describe [it].

Peter (M, 51) ultimately claims that his entire experience with his song is just hard to put into words. Aside from the technical aspects such as the slide guitar that he particularly favours, the overall experience seems to have an inexplicable effect on him.

Well, it chokes me up sometimes because it is a pretty, it's a really heavy spiritual song. It's hard to put into words...it's just so beautiful that I think he's pleading.

Variations of this elusive change component are present across participants. In addition to the aforementioned easily articulated changes that the experience induces, there are moments of hesitation and confusion when participants are asked to elaborate on their explanations. The elusive changes theme captures one of the most critical components of the phenomenon of consuming special experiential possessions. It suggests that perhaps this consumption experience offers an inexplicable psychological benefit beyond that which can readily be felt and verbalized. That is, aside from the previously described reasons for opting for experiences over material goods (e.g. Nicolao et al. 2009; Dunn et al. 2011), a favorite experience has the additional power to act as an agent of change. This ability to trigger and induce both discernable and perplexing

changes lends further support to the sacredness of consuming personally favoured experiential possessions (Belk et al. 1989; Belk et al. 2003). Put simply, this transformation theme captures how the consumer is able to experience unique changes via the experiential possessions' kratophanous powers. By being in (controlled) contact with the cherished experiential possession, the consumer is afforded the benefit of transcending the mundane.

### 3.6.3 Social Roles and Consumption Rules

Loved objects act as important mementos of "key events or relationships in the life narrative" (Ahuvia 2005, 179). Much like loved objects, loved experiential possessions also offer a direct link to the consumer's network of associations, key relationships and contexts. The third and final meta-theme embodies how participants view their cherished experiential possession within a constellation of social relationships and consumption rules. On the whole, this theme demonstrates the dual private-social aspects, and structural rules, for consuming a special experiential possession.

*The Others and Me.* In every interview, discussion turned to reflections on the social influences that brought a particular song to its status as the most preferred. In fact, while describing how a preferred song was chosen, participants typically began by recalling how a family member or friend had first introduced them to it. Tara (F, 18) for example, describes her dad and his influence on her music taste as the main other in her descriptions:

I think the first thing I think about would be my dad, just because he showed me this song. And, like, me and him kind of have a kind of

collective...like, we listen to the same kind of music and that's our understanding about different things. Where we don't really talk too much, but we talk through music, kind of.

Other participants described similar associations with others, including romantic partners, family members and friends. As Peter (M, 51) explains,

That was in '86 and I don't know...and I had a sister-in-law...that song had come out at that time and she said she really liked that song, I said I really liked that song, too. So it reminds me of her too. I've lost touch with her and so it's a little bit harder to...it reminds me of that.

In Peter's explanation, the song reminds him of someone from his past, and while bringing it up seemed difficult, it unavoidably surfaced as an important component of his song selection and the overall reasoning behind this favorite experiential possession. Much like material possessions become part of the extended self's constellation of meanings in part via habituation and familiarity (Belk 1988), I add that experiential possessions also become part of the extended self via association with significant others. The mention of loved ones and estranged family members acknowledges both the experiential possession's personal meanings, as well as its inherent social dimension.

The appearances of others in participants' narratives were not limited to personally familiar or significant others, but also included distant others such as the musician(s) or artist(s) involved in the song. The presence of these distant others signify that favored experiential possessions carry important relational aspects that transcend immediate familiarity. In these cases, some sort of relating occurs whereby consumers project personal ties to public figures, believing that by consuming these respective experiential

possessions, they are privy to unique messages of personal guidance and support. Such cases mirror the argument put forth in the literature on material possessions, which suggests that not only do we project our identities on our possessions, but our possessions in turn project their identities on us (Belk 1988; McCracken 1987; Mehta and Belk 1991). Here, the identities of the experiential possessions, along with their creators (the musicians) are projected onto its consumers. In one particularly poignant example, Naomi (F, 20) explains that her emotional display of tears is actually a cathartic experience in response to the artist's message to her of hope and strength. When elaborating, Naomi turns to describing how her life as an immigrant from Nicaragua has been a trying transition, and subsequently how she believes that the artist experienced similar difficulties.

I feel down...like hear him say...those words bring back memories and stuff...he's going through it...it's going to be fine so I'm going to be fine also. He says in the song...'sometimes people don't, like, understand what he is trying to prove'...

Naomi recalls this lyric and explains how she believes the artist's similar experiences demonstrate that she is not alone, and will never be alone so long as she has this particular experiential possession to lean on. In effect, this allows her to feel some kinship with the singer of the song, regardless of how distant and personally unfamiliar he may be.

In recognizing that a special experiential possession is embedded in a broader social context, it appears that such possessions must also readily evoke and acknowledge how others shaped its existence. Instead of merely remaining a completely individualized and solitary consumption experience, these special experiential possessions demonstrate

extension and linkages from the consumer's private world of associations to the broader world of meaningful social influences.

*Private vs. Social Listening.* In addition to the importance of social others as they relate to the experiential possession, favorite possessions also involve rules regarding social context. Here, context includes the rules and norms that dictate the physical environment and surroundings during which the possession may be experienced, much like the consuming of highly desired objects (Bakhtin 1968; Belk et al. 2003). Private vs. social listening captures an important component of when (timing), where, and with whom, special experiential possessions may be consumed. One key determinant of appropriate consumption context is the aesthetic nature of the experiential possession. This determinant recalls the pleasure appraisal, which discusses the aesthetic and hedonic evaluation of the experience as a basis for subsequent consumption. This appraisal thus also informs the structural rules and the private vs. social nature in which the special experiential possession is to be consumed.

Nearly all participants reported habits that maintained private experiential consumption. The exceptions to this occurred when the song's aesthetic qualities (i.e. high tempo, mainstream genre) called for a more social atmosphere with the company of like-minded others. To determine whether private or social listening was appropriate, participants implicitly acknowledged the song's qualities. It seems that the more sentimental and privately held the multi-sensory reactions were, the more revered and private the consumption context remained. On the other hand, the more this experiential possession conjured imagery and emotions resonating with a group presence, the more its consumption context called for and encouraged a social atmosphere. For example, Ally

(F, 18) explains her reasoning for playing the song in certain social situations rather than privately and alone:

...I usually listen to it when it's blasting. Like in the car or at the house  
or at other friends' places...I usually listen to it really loud and yeah...

She elaborates on this structural pattern and links it to the issue of appropriate consumption rules, saying:

I guess I kind of have the same feeling every time I play it because I play  
it in certain settings. Like I wouldn't play it to go to sleep, when I'm  
alone, or something like that.

The need for a particular social context to play the song stands in contrast to the descriptions offered by the majority of other participants. Instead of describing situations where the music is "blasted" and listened to in cars or friends' homes, the majority of participants preferred to be alone when they consumed their special experiential possession. The sacredness ascribed to these possessions suggested the need for more private consumption circumstances. That is, in most cases, implicit evaluation of the possession's aesthetic qualities (pleasure appraisal) called for a private context. These private contexts typically included being alone in one's apartment or room, usually in the early part of the day or alternatively in the late evening or night. For example, Louis (M, 18) explains that:

It doesn't give me a particularly large amount of feeling of get-up-and-go or anything of the sort. More of a relaxed...tranquil state of mind.  
Much more of a sit-down-and-think-about-things than get-up-and-go...I  
play it on my own whenever I feel that...A large part of it would be

whenever I feel that being relaxed is okay now...I don't want to play  
this before I do work, because then maybe I'll get lethargic.

Claire (F, 17) echoes this by saying:

In a sense, like I don't really listen to it during the day. It's kind of too  
sad for the daytime...It's just the tune is a softer, kind of nighttime  
song.

Other participants on the other hand, preferred to experience their possession during the daytime and in combination with other mundane activities. In fact, the nature of experiential possessions, and particularly music, allows for its consumption to be simultaneous to other activities. In particular, music listening is only cited as a focal (vs. background) activity in 2-12% of self-reported cases across recent studies (Juslin et al. 2008; North et al. 2004; Sloboda et al. 2001). All other cases involve using music to complement other activities including personal maintenance, travel and active leisure (Sloboda et al. 2001). Here, the structural rules for consumption yield descriptions of how these possessions can be used in day-to-day life, particularly to liven up the mundane. In these descriptions, special songs are better suited for this type of timing rather than later in the day, particularly because they offer the unique opportunity to transform the self in ways that only special possessions can (Ahuvia 2005; Belk 1988; Belk et al. 2003; Curasi et al. 2004). As Jane (F, 26) explains:

I listen to music most often in the car. So...and I'm usually driving by  
myself. ...when I visualize it, it's the middle of the day, like it's sunny. I  
think most of the time that I've listened to this, it's been during the



day...It usually just happens and afterwards I'm like that was really good, I really needed to hear that. But it's not something I often seek out.

On the surface, Jane uses structural (how, when) rules for determining the consumption of her favorite experiential possession (e.g. in the car, alone), however on a deeper level, she also touches upon controlled exposure ("it's not something I seek out") and transformation ("afterwards I'm like that was really good I really needed to hear that").

As a result, the rules she imposes on how her special experiential possession is to be consumed not only complements the simple act of driving (as per Sloboda 1999), but consuming this special experiential possession while performing a mundane tasks leaves her open to benefiting from the possession's unique transformational capabilities.

These descriptions demonstrate that the social roles and rules theme encompasses unique structural (how, when, where, with who) rules, which are in turn implicitly dictated by the pleasure appraisal and controlled exposure aspects of the pleasure paradox. These rules help paint a detailed picture of the highly particular way that special experiential possessions are consumed, in much the same way that sacred objects are treated (Belk et al. 1989). There is no unified structural (when, where, with who) preference for consuming these experiential possessions. Rather, the unique social relationships that are conjured by the special experiential possession provide the first social dimension, while the pleasure appraisal then dictates structural consumption cues, providing the second social dimension. In a sense, this idea illustrates the balance between the self and other influences. According to these participants, consuming their favorite experiential possession is predominantly a private affair. However, there are important exceptions when the song qualities permit it to be a social and shared

experience. In other words, while the sphere of special experiential possessions is overwhelmingly private, it is further embedded within the broader social framework of both familiar and distant others. This in turn allows for a special experiential possession, such as a song, to involve both a private, self-orientation, as well as a broader social structure.

### 3.7 General Discussion

I began this research with the intent of gaining an understanding of what consuming special experiential possessions is like, and in turn we hoped that this would help inform and add to the broader work on consumer well-being (e.g., Mick 2006; Ozanne 2011). Recent research developments have rather unanimously suggested that consuming experiences yields more overall happiness for the individual rather than consuming material goods. However, a review of the literature shows that we still know very little about the immersive, in situ experience of experiential possessions. Interestingly, what we know about experiential possessions is rather limited to what it is like to make choices pertaining to the experience (e.g., the antecedents as per Kwortnik and Ross 2007), what extraordinary, one time experiences are like (e.g., as service encounters as per Arnould and Price 1993), as well as how such experiences are evaluated post-consumption (e.g., the consequences as per Van Boven and Gilovich 2003).

To better organize the findings regarding the consumption of special experiential possessions, I developed a thematic framework that spans the pre-consumption and in situ aspects of the consumption experience. By doing so, I have highlighted the many ways that this unique type of consumption resembles aspects of special material possessions in

the tradition of Ahuvia (2005), Belk (1988), Belk et al. (1989) and Price et al. (2000), among others. At the same time, this work has also demonstrated how distinct special experiential possessions can be from their material counterparts. While I don't explicitly compare experiential possessions with material possessions, I suggest that the themes derived from my data highlight the distinct qualities of consuming experiential possessions.

First, the two stage thematic model is based on a temporal perspective. I introduce a first phase that captures the pre-consumption considerations required by the individual consumer. In the pleasure paradox, the sense-making reaction (hearing, feeling, seeing) provides an automatic foundation to expectations regarding the experiential possession. From this initial retrospective evaluation, reminders of the experience's fragility are brought forth and careful consideration regarding potential for fatigue is made. For example, participants express worry regarding overexposure and overconsumption of their special experiential possession. This in turn illuminates the delicacy of the experience while reinforcing its position as a sacred or special object that requires appropriate treatment (Belk et al. 1989).

The second phase of the thematic model includes two interacting, in situ themes. Most importantly, these two themes capture how the experiential possession is consumed (experienced) through participants' moment-by-moment evidence of the lived experience. First, I find that the highly sacred nature of this consumption experience introduces the presence of and potential for transformation. Here, personally meaningful music acts as a catalyst for inducing a change and even catharsis. This transformation is experienced both through readily articulated physical, psychological and emotional changes, as well as in a

more indirect and incomprehensible manner. This latter aspect of the transformation theme illustrates that while the listening experience is engaged in for its obvious benefits, there is also a more covert component that acts to draw in and influence its consumer.

Finally, the social roles and consumption rules theme demonstrates that a highly personal and private experience can also include important social aspects. It seems that no song discussed in the data is without some form of self-other referencing. Whether this is because the song is associated with the individual who first introduced it, or whether the artist is perceived as holding unique insights into personal matters, the presence of an *other* is always there. The social dimension does not only allude to referencing others, but this theme also lends itself to informing where and when (structural rules) consuming the experience is appropriate. The focus of the context in which the highly personal and sacred experiential possession should and can be consumed varies between being a solitary activity to one that calls for others. Regardless, negotiating the terms of what is an appropriate consumption context conjures both the ritualistic aspect of the experience as well as the acknowledgment of a broader social framework. This theme aptly captures the importance of both recognizing the presence of and role of others in the consumption experience, as well as the (typical) need for a private and/or controlled place to experience it appropriately.

What is interesting to note about the thematic framework derived here is that the data are not from an entirely new experience. Rather, the framework is based on data obtained both from participant retrospection as well as participant consumption of the actual experiential possession. This unique temporal aspect adds an element of depth to our work that would otherwise not be possible had the method or context been different.

In my aim to investigate and add to the discussion on consumer-well being, I suggest that the theme of transformation shows great promise for better understanding how experiential possessions can be more rewarding than material possessions. Of the three themes in this framework, this particular theme offers the most intriguing new development. I believe this is a uniquely experiential benefit that cannot be replicated with material possessions and material purchasing to such an extent. While new clothes may make a consumer feel transformed, this effect is arguably rather temporary and may not hold the same gravitas and temporal resonance. Much as the hedonic benefit associated with material possessions decays at a faster rate than with experiential possessions (Nicolao et al. 2009), it is plausible that the transformation associated with these possessions will also differ in a strikingly similar manner.

The thematic framework presented in this research is intended to be transferable to other contexts. For example, this framework can be used to understand one's treatment of a favorite restaurant (Zauberman et al. 2009). In this context, the restaurant is arguably an experiential possession as its food is not consumed for any immediate utilitarian purpose (as fulfilling the need to eat can be accomplished in a variety of ways), but rather it is based on the possibility of experiencing something unique. With respect to the framework, diners at a favorite restaurant may choose to consume their meal at a specific time, with specific people (social roles and consumption rules), to experience the multi-sensory inputs promised by prior experiences with the restaurant (the pleasure paradox), only to be in its presence and potentially experience some of the possession's positive benefits and changes (transformation). The treatment of this restaurant as a special experiential possession, including the ritualized manner of consuming it, focalized

attention and expectation of some emotional, physical and/or psychological transformation echoes the manner in which personally favored songs are consumed. These parallels suggest that consuming favorite experiential possessions can inform not only experiences that belong directly to the individual consumer, but also to group level experiential possessions that contain privately held associations.

### 3.8 Limitations and Future Research

The present research has a few limitations. First, the data was collected from a sample of individuals who represent a largely middle class background. In addition, the majority (but not all) of the participants were under 25 years of age. It is possible that both of these demographic qualities may have influenced the findings. For example, could the involvement of special populations demonstrate a different manner of consuming special experiential possessions? Different demographic variables could alter the way special experiences are treated and consumed. As shown in the research on subsistence settings (Viswanathan, Sridharan and Ritchie 2010), low literate consumers (Adkins and Ozanne 2005) and homeless women (Hill 1991), using special populations can yield important and different findings compared to the convenience sampling procedures often used. Second, nearly all participants mentioned that it was difficult to come up with just one favorite song for discussion. This suggests that the song choice may have come from a pool of other possible contenders, and that this particular preference actually captures a sentiment that is applicable to a wider group of songs rather than just one. Indeed, this further informs the research by indicating that the experience of choosing to consume such songs is a rather serious ritual. Additional

research exploring how the decision-making is made, and what considerations are taken into account could provide additional depth to the pre-consumption phase of the framework.

Third, there may have been a selection bias as participants self-selected into the study by readily identifying that they could name and discuss one favorite song. As a result, this research may not have captured data from individuals who were on the fence with respect to committing to only one song amongst many, for discussion. Perhaps an investigation that included a group of special experiential possessions would uncover themes pertaining to what elements they share or diverge on. Just like favorite material possessions, favorite experiential possessions also exist in plurality. This is an aspect of my thematic framework that was not directly addressed.

Future research can enhance our understanding not only of special experiential possessions, but also of the greater area of experiential possessions. This work has begun to investigate how experiences can be considered not just part of an individual's history of consumption, but as a special *possession* that can be reconsumed. This area of research would benefit from an approach that views experiential possessions as a diverse constellation of possessions ranging in levels of importance or personal relevance. Much like material possessions can be classified according to different levels of the extended self (Belk 1988), so too can experiential possessions. For example, how do consumers treat and “experience” travel, social media, and even attendance at festivals, museums and galleries? These experiential possessions should be understood as more than simply material purchases with experiential aspects. Instead, by viewing these examples as

experiences that are possessions, researchers could help further inform the discussion on consumer well-being and happiness.

Due to the highly subjective and intangible nature of experiences, investigating experiential possessions is challenging. However, if we are to move beyond the study of material goods and to promote the benefits of consuming experiences, it is also imperative that we develop a better and more thorough understanding of what this means.



## Chapter 4

### 4 Part 2: Experimental Investigations of the Music

#### Experience and Its Effects on Consumer Decisions

The second part of this dissertation investigates the music experience within an experimental setting. Based on the findings obtained in the phenomenological study, and specifically the emergence of a “transformative” component, the following experiments focus on developing a systematic understanding of how music is experienced and where this potential change occurs. A transportation theory lens is used as a means of explaining this form of experiential consumption, particularly as it is premised on the use of emotions, cognitions and imagery, and further captures how individuals can be transformed via experiences. In addition, this experimental approach further allows for a controlled investigation of how the music experience shapes and influences consumers as they engage in marketplace decisions.

#### 4.1 Conceptual Background

In the following sections, I discuss narrative transportation theory, the theoretical and empirical consequences of being transported, and conclude with how transportation theory can be used for the study of the music experience.

#### *4.1.1 Narrative Transportation*

Narrative transportation theory describes the experience of becoming highly absorbed in a cognitive, emotional and imagery –filled narrative (Green and Brock 2000, 2002; Green et al. 2004). Green and Brock (2000) first introduced the concept of transportation into the social psychology literature after citing Gerrig’s (1993) physical transportation metaphor to describe mental travel. According to Gerrig (1993, p.10-11), “someone (the traveller) is transported, by some means of transportation, as a result of performing certain actions. The traveller goes some distance from his or her world of origin, which makes some aspects of the world of origin inaccessible. The traveler returns to the world of origin, somewhat changed by the journey”. Most interestingly, one of the first theorized effects of being transported is that individuals come back somewhat changed by the process, having experienced strong affect (Green and Brock 2000).

Among the researchers who utilize narrative transportation theory, the focus has prominently remained on investigating consequences with visual stimuli such as advertisements, commercials and films (e.g. Green and Brock 2000; Green et al. 2004; Escalas 2004; 2007; Van Laer et al. 2014). Further, while there is general consensus regarding what transportation theory does, there remain two subtle differences in the manner with which it has been examined. The first of these deals with the need for emotions, while the second deals with the different roles of the individual during transportation.

First, in order for transportation to be successful, some level of involvement with the narrative is expected. According to Escalas (2004, 2007), the individual must engage in the narrative via mental simulation (which leads to narrative processing), while

according to Green and colleagues (2000, 2006, 2008), this occurs through engaging the cognitive, emotive and imagery components of transportation. Escalas (2004, 2007), further suggests that this mental simulation is the construction of a hypothetical scenario using cognitions and images and that this cognitive and imagery filled simulation is what leads to narrative processing and attitude change. On the other hand, Green and colleagues (2000, 2004, 2008) describe transportation as the simultaneous melding of cognitions, imagery *and* emotions. In Green and Brock's work (2000; Green 2004; Green et al. 2004, 2008), transportation is treated as the primary vehicle through which narratives work. Transportation is conceptualized as a "convergent process, where all mental systems and capacities become focused on events occurring in the narrative" (Green and Brock 2000; p.701), much like Escalas' (2004; 2007) mental simulation. However, Green and Brock's (2000) transportation scale includes 12 statements that effectively also capture aspects of all three aforementioned components: cognitions, affect/emotion, and imagery. Example items (anchored by 1-not at all to 7-very much) include "After the narrative ended, I found it easy to put it out of my mind" (cognitions) (reverse coded), "The narrative affected me emotionally" (affect/emotion), and "I could picture myself in the scene of the events described in the narrative" (imagery).

In summary, amongst these two approaches to investigating narrative transportation, both groups of scholars (Escalas and Green and colleagues) agree on the idea of being transported via mental simulation, however it is in the inclusion of emotions where the two seem to differ. Despite this subtle difference, both positions agree on the need for directed attention and the use of cognitive resources for transportation to succeed, and both groups also promote the phenomenon of transportation and its ability to

reduce counter arguing, and increase liking and persuasion. (For a more thorough description of how transportation is similar to and different from other relevant constructs, see Appendix C). The present dissertation uses Green and Brock's transportation scale, and moves from a focus on the commonly used visual stimuli (e.g., stories, advertisements and films) to exploring whether and how transportation can occur without the presence of a visual narrative.

A second additionally subtle difference between Escalas' (2004, 2007) and Green and colleagues' (2000, 2002, 2004, 2008) work is the emphasis placed on self. In Escalas' (2004, 2007) approach, there is discussion of the need to feel lost and absorbed with a focus on the self as the main character in the narrative. On the other hand, Green and colleagues (2000, 2004, 2008) appear to promote the importance of familiarity with the domain being presented (i.e. familiarity with the scenario, characters or situation) in order for the narrative to work. Here, some aspect of the self must be matched to the narrative, but the self is not necessarily the main character. As argued by Green et al. (2004), through a connection with the characters and their triumphs and tribulations, the individual can be better carried away or transported to a different world. In the present research, I address this difference and investigate what type of focus (self or other) is dominant during musical transportation.

#### ***4.1.2 Some Benefits of Transportation***

Aside from these aforementioned differences in the study of transportation, the overall benefits of being transported are consistent and promising (for a recent review and meta-analysis, see Laer et al. 2014). Researchers using transportation theory find that

narratives that induce a high level of transportation result in long-term changes to affect, beliefs and attitudes towards the characters or objects in the story (e.g. Batat and Wohlfeil 2009; Escalas 2004, 2007; Green and colleagues 2000, 2002, 2004, 2008). Specifically, a high level of transportation into the narrative creates lasting impressions such that the attitudes formed during this time are rather persistent, creating lasting attachments and feelings for the focal objects in the narrative (Escalas 2004; Green and Brock 2000, Green 2004). Furthermore, transportation requires a melding of attention, imagery and feelings with a focus on the story events, much like the concept of flow (c.f Csikszentmihalyi 1990, 1997) (Green 2004; Green et al. 2008). As a result, this flow or transportation leaves the individual highly cognitively and emotionally involved in the narrative while simultaneously removed from the immediate environment (Escalas 2004; Green 2004).

While the positive benefits of narrative transportation include an increase in positive affect and attitudes towards the focal objects or characters involved in the narrative, additional benefits to the self have also been cited (Green 2004; Green et al. 2004). According to Green et al. (2004), transportation can promote enjoyment via an escape from the everyday, mundane world. It allows individuals to leave their personal worries behind, to release stress, improve mood, and to engage in a process of self-discovery and reflection. In addition, narrative transportation has been found to promote empathy with the focal characters, thereby resulting in goodwill towards individuals otherwise misunderstood or neglected (Green et al. 2004).

Narrative transportation can fail if the story is poorly told, if individuals are highly skeptical or do not identify with the narrative elements, and if there is some interruption to the transportation experience (Bhatat and Wohlfeil 2009; Escalas 2007; Green 2004;

Green et al. 2008; Wang and Calder 2006). Since narrative transportation (and its reliance on mental simulation) is an active and effortful process, distractions away from this act only serve to take away from the experience and reduce its benefits.

#### *4.1.3 Transportation and Music*

Transportation has typically been used with visual materials such as print and film, which then allowed for the use of a narrative. For example, an early paper by Adaval and Wyer (1998) showed that vacations described through a narrative advertisement were evaluated more favorably than those described by a list. Other papers using narratives have also typically relied on visual stimuli such as advertisement print for running shoes (Escalas 2004; 2007), short stories (Green and Brock 2000; Green 2004) and films (Green et al. 2008). However, I argue that narrative transportation need not be limited to visually processing stories, tag lines or images. As demonstrated earlier in the discussion on music, its components and outcomes, music has the ability to induce various emotional and physical reactions (c.f. Bruner 1990), which may create transportation.

By taking the transportation idea into the context of music, we may be better able to understand a dimension of this human consumption experience that has not yet been explored. Namely, aside from the emotional (e.g. sadness) and physical (e.g. increased heart rate) capabilities that music can have, how can we understand this phenomenon through the transportation lens otherwise used with visual stimuli as per Green et al. and Escalas? Transportation involves a melding of attentional focus, emotions and the use of mental imagery and results in a change in the individual who is transported (Green and Brock 2000). Music (both with and without lyrics) similarly has important imagery-

related, affective and physiological effects on the listener (c.f. Kellaris 2008; Khalifa et al. 2002; MacInnis and Park 1991). In addition, my preceding qualitative study provided evidence for a transformation-like result from consuming a favorite (musical) experience. As a result, transportation theory offers a logical and insightful lens for explaining how consumers experience music and why this influences their subsequent decision-making.

That said, the following experiments are designed to: unravel the manner in which music can be understood through transportation theory (pretest and experiment 1); determine how becoming transported through music influences happiness levels (experiment 2); and understand how each aspect of this theory impacts perceptions of positive change and decisions related to the marketplace (experiment 3).

## Chapter 5

### 5 Pretest

The purpose of the pretest is to understand if and how transportation works in the auditory domain with music listening.

*Music Modes.* It is typical to expect that music in the major mode (i.e., with consonant harmonies) will elicit greater pleasure than music in the minor mode (i.e., with dissonant harmonies). This is particularly true for Western cultures that have a learned affinity and preference for major mode chords over minor mode chords (Bruner 1990; Hevner 1936).

Work by Bruner (1990) and Kellaris and Kent (1993) suggests that consonant music, characterized by major chords, is rated more positively and results in positive affect. On the other hand, dissonant music, characterized by atonal or minor chords, is rated as negatively valenced and results in negative affect (Bruner 1990; Kellaris and Kent 1993). Exposure to music deemed pleasurable vs. unpleasurable has also been shown to activate the rewards center of the brain, regardless of the individual's musical expertise (Lewis 2002). As a result, there is potential for music that is pleasurable and in the major mode (vs. unpleasurable, minor music) to further influence the extent to which individuals experience transportation. Specifically, transportation theory is premised on the melding of three components: attention (cognition), affect and imagery (Green and Brock 2000). Therefore, major mode music could create greater transporting effects simply by eliciting more attention (and in turn, positive affect and imagery).



Some support for the attentional aspect of music was cited in earlier sections (see “Cognitions” section in Music and Psychology, and “Attention-grabbing qualities of music” in Music and Marketing), and is further corroborated by work on cross-modal responses (Anand, Holbrook and Stephens 1988) and disfluency (Mehta, Zhu and Cheema 2012). For example, Anand et al. (1988) showed that affective responses to a visual stimulus are mediated by cognitions when both verbal and instrumental auditory stimuli are heard simultaneously. That is, appraisal of the visual stimuli is influenced by attention to the auditory cue. In a more recent example, Mehta et al. (2012) support the attentional aspect of music by showing that a moderate level of noise (70 dB) increases processing difficulty, which in turn induces greater abstract thinking and more creativity. They suggest that this processing disfluency is a result of increased difficulty in focusing on a focal task, as the ambient sound attracts attention and subsequently detracts from the capacity to think concretely. Most famously, Kellaris and Kent (1992) found that participants who liked the music they overheard were also in fact more greatly attuned to the music (vs. those who did not like the music). This in turn resulted in increased perceived waiting times, presumably because the favorable music provoked greater attentional levels.

As has often been used in the past with advertisements and films, narratives have also shown the ability to induce imagery (in addition to cognitions and affect) by virtue of the medium and message being used (i.e. Green 2004; Escalas 2004). In the present research, music does not provide a narrative per se, nor is it a visual medium. Instead, I suggest that the ensuing transportation from music listening is likely to be a factor of directed attention (or mental simulation (c.f. Escalas 2004)). Since this is one of the

aspects found in music listening, and is one of the components of transportation theory (cognition, affect, imagery), it is possible that auditory transporting effects will rely on reports that demonstrate attentional focus.

As a result, I believe that more pleasing music will draw attention at a greater level than less pleasing music, which will in turn contribute to the three components of transportation. In other words, major mode music, which is known to universally be more pleasant, may create the strongest transportation effect because it draws the highest attention. If music listening is made the focal activity, then it is logical to expect the other components of transportation, namely the affect and imagery aspects, to surface and create a heightened transportation experience. Alternatively, minor mode music, which has previously been shown to be rated as less pleasant and thus could be less pleasant to attend to, may show weaker transportation effects due to lack of attention.

H1: Music (vs. no music/white noise) will show higher self-reported transportation effects.

H2: Major mode music (vs. minor mode music) will show higher self-reported transportation effects.

***Self versus Other Focus.*** A number of studies to date have demonstrated that transportation works best when the individual engages in identification with the focal character(s) or objects (Escalas 2007; Green 2004; Green et al. 2004). However, what remains unclear is whether one must focus outwardly while leaving the self separate (“other” focus), or whether one becomes central to the transportation experience (“self”

focus). Indeed, Escalas (2004, 2007) mentions the need to focus on the self as part of transportation via mental simulation. Alternatively, Green and colleagues (2004, 2004) propose that the individual needs to develop feelings for the central character(s), recognizing some aspect of the self in these character(s), yet maintain an overall focus on the character rather than the self.

Music may encourage a “self” focus because the individual engages in processing that has been shown to involve the production of imagery and emotions elicited by the sounds (Bruner 1990; Kellaris and Kent 1993). Rather than instructions to imagine using a particular object (as is typically found in advertisement studies), or viewing films centered on established characters, music may have the ability to allow the individual to maintain a focus on themselves during transportation. As a result, I propose that auditory transportation will demonstrate more self-focused vs. other-focused thoughts. This, I believe, is because music allows the individual to engage in transportation in a much more flexible and predominantly “self” focused exploratory manner.

H3: Transportation through music will demonstrate predominantly “self” focus rather than “other” focus thoughts.

## 5.1 Method

*5.1.1 Participants and Design.* Undergraduate students ( $N = 113$ ) were recruited to participate in this pretest in exchange for course credit. This study took place in a behavioural lab where it was administered electronically on individual computers in groups of 10-15 participants at a time. This study involves a 3-way (music mode: major

mode vs. minor vs. control/white noise) between-subjects factorial design. The final sample size had 108 usable responses (51% female). Five participants were excluded due to low variability and inattentive responses when presented with reverse-coded items.

**5.1.2 Music Mode.** The mode condition utilizes two classical instrumental songs, one characterized by the major mode, the other by the minor mode. In addition, a control condition (white noise) was used. The major mode piece was Chopin's Nocturne Op. 62, no. 2 in E major, while the minor mode piece was Anton Webern's Variations for piano Op. 27, no. 3. All pieces were timed to be approximately 6 minutes in length and to contain only piano (except for the control). These pieces were independently verified by a trained musician as adhering to the technical requirements that would classify them as major and minor mode pieces, respectively.

**5.1.3 Dependent Measures.** After exposure to the mode stimuli (major or minor mode classical pieces or control), participants were asked to engage in thought listing. The thought-listing task is placed after the music stimuli is concluded so as to not interrupt the transportation process. As suggested by Busselle and Bilandzic (2009) engaging in anything unrelated while being transported interrupts the process and diminishes its effects. The thought-listing task is used to help determine what type of thoughts were involved in the experience, whether transportation type thoughts occurred (i.e. there is wording relevant to story-like experiences, mood changes, with a chronology and connections among concepts/thoughts (Green et al. 2004)), and whether there is a "self" or "other" focus. Independent coders were used to tally the number of times words such as "I", "me", "myself", "I'm" and "we" were used in comparison to "other" focused

words (such as “he”, “she”, “they”, “them”). If neither “self” nor “other” thoughts were found, coders were to indicate this by picking the “neither” category.

An adapted transportation scale based on Green and Brock’s (2000) Narrative Transportation scale was also used (see Appendix B), and musical preferences were collected (the list of genres included: pop, rock, blues, jazz, classical, and country). All participants were asked a number of socio-demographic questions, thanked and debriefed.

## 5.2 Results

*5.2.1 Construct Validity.* To assess the validity of the adapted auditory transportation scale, an exploratory factor analysis using principal component extraction method with a varimax rotation was used. The 11 self-report transportation items were first assessed for inter-item correlations in SPSS, and following this initial assessment all variables were found to be normally distributed. The Kaiser-Meyer-Olkin measure of sampling adequacy of 0.81 indicated that the data was suitable for principal component analysis. Further, Bartlett’s test of sphericity was also significant ( $p < 0.001$ ), indicating that the factor analysis procedure was appropriate.

Three factors were extracted with a cumulative variance of 62.87%. Factor 1 captures Imagery and Emotional Involvement and includes items 1, 3, 4, 6 and 7. Factor 2 captures Self-Song Elaboration and includes items 8, 10 and 11. Factor 3 captures Cognitive Attention and includes items 2 and 9. While these three factors do not capture separate cognitive, emotive and imagery factors as conceptualized by Green and Brock (2000), they do combine aspects of this (Factor 1: Imagery and Emotional Involvement, Factor 3: Cognitive Attention). Further, Factor 2: Self-Song Elaboration mirrors elements

from the qualitative work that captured aspects of “Pleasure Appraisal” which described how listeners related to and made sense of their music.

Among the 11 items, item 5, “After the song ended, I found it easy to put it out of my mind” demonstrated high cross loading on factors 1 and 3, and so it was removed from subsequent analysis. In addition, item 6, “I wanted to keep listening” also demonstrated weak loading in the subsequent experiments, but was retained in the present analysis due to its high loading on Factor 1. Note that these factors do not provide a three-factor solution as initially conceptualized by Green and Brock (2000). Indeed the authors recommend using the composite score of the scale, as their own analyses did not show that each factor independently predicted outcome variables of interest (Green and Brock 2000, 704).

A subsequent confirmatory factor analysis using three first-order factors with auditory transportation as the higher-order latent factor was conducted. The three first-order factors are based on the extracted factors derived from the exploratory analysis, and results showed a moderate model fit:  $\chi^2 (24) = 47.90, p < 0.05$ ; GFI= 0.913; RMR = 0.210; CFI= 0.928; RMSEA= 0.096. Beta weights were all positive and significant ( $p < 0.001$ ) except for item 9 (“I found my mind wandering...”). This item was retained however as it is one of two items on the third factor. Modification indices suggested adding a path from item 10 (“Images are relevant to my life”) to item 11 (“Changed my life”). Subsequent model fit results were greatly improved:  $\chi^2 (17) = 16.97, p > 0.3$ ; GFI= 0.962; RMR = 0.096; CFI= 0.944; RMSEA= 0.035. Based on these results, the adapted auditory transportation scale demonstrates that it is comprised of three correlated first order factors that together predict a higher-order auditory transportation construct.

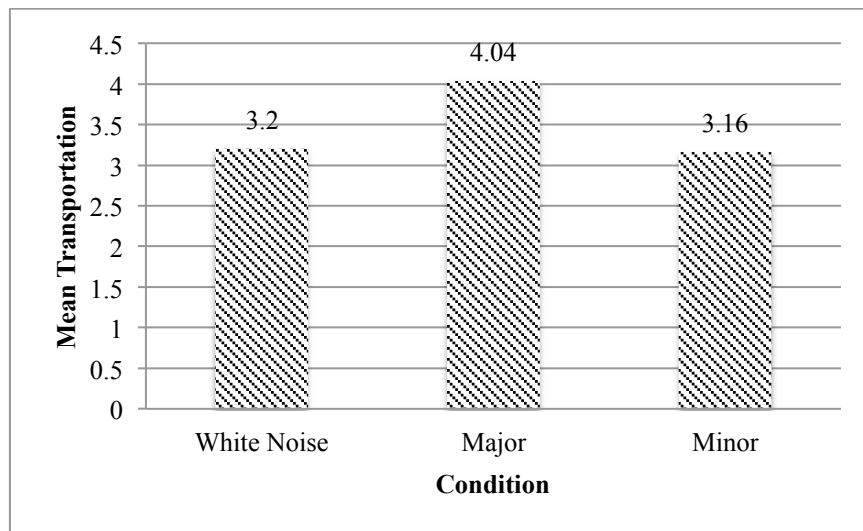
**Table 2: Rotated component matrix for Auditory Transportation items**

	Component		
	Imagery and Emotional Involvement	Cognitive Attention	Self-Song Elaboration
6. I wanted to keep listening to the sound.	0.843		
1. While I was listening, I could easily picture images.	0.804		
3. I could picture myself in the images I had created from the sounds.	0.772		
7. The sounds affected me emotionally.	0.765		
4. I was mentally involved in the sound while listening to it.	0.727		
10. The images I had from the sounds are relevant to my everyday life.	0.722		
11. The images from the sounds have changed my life.	0.717		
9. I found my mind wandering while listening to the sounds.		0.832	
2. While I was listening, activity going on in the room around me was on my mind.		0.743	
8. I found myself thinking of ways the sound could have turned out differently.			0.943
5. After the sound ended, I found it easy to put it out of my mind.	-0.368	0.212	-0.398

**5.2.2 Experimental Results.** An ANOVA compared the mean self-reported transportation score (Cronbach's  $\alpha = 0.822$ ) across music mode conditions: control/white noise ( $N = 34$ ), major music ( $N = 36$ ), minor music ( $N = 38$ ). In addition, the following control variables were included: gender, age, education, income, marital status and musical preferences. This analysis was statistically significant,  $F(2, 99) = 8.933, p <$

0.001. A pairwise comparison ( $p < 0.001$ ) indicated that mean transportation in the major music condition ( $M = 4.04$ ,  $SD = 1.05$ ) was significantly higher than the mean transportation in the control condition (white noise) ( $M = 3.20$ ,  $SD = 0.96$ ) and significantly higher than the mean transportation in the minor music condition ( $M = 3.16$ ,  $SD = 0.92$ ). The mean transportation in the minor music condition ( $M = 3.16$ ,  $SD = 0.92$ ) was not significantly different than transportation in the control condition. These results partially support *H1*, which suggested that the music modes would be significantly more transporting than the control, white noise condition. In fact, only the major mode music was significantly more transporting than the control condition.

There is support for *H2*. The major music condition ( $M = 4.06$ ,  $SD = 1.05$ ) was significantly more transporting than the minor music condition ( $M = 3.14$ ,  $SD = 0.92$ ) ( $p < 0.001$ ).



**Figure 2: Transportation levels across music mode conditions**

Last, two independent coders blind to the hypothesis rated the free thought listings in each music condition across three categories: “self” focused words (e.g. I, we, me), “other” focused words (e.g. he/she, they, them), and “neither” (when the perspective was



unclear). Each separate sentence was considered as one thought and coded as such (see Table XX for example). Based on the preceding results, the major mode condition is deemed to be the most transporting, followed by the control and minor mode conditions. A chi-square analysis was conducted to compare coding across the three conditions. Chi-square results (Table 4) suggest that the major mode music shows significantly more “self” focus versus “other” and “neither” focus: [ $\chi^2(4) = 33.925, p < 0.001$ ]. This indicates that transporting music (in this case, major mode music), involves significantly more self-focused thoughts, supporting *H3*.

**Table 3: Example excerpts and coding of self vs. other focused thoughts**

Quote	Self	Other	Neither
“On a fall day, one person is walking down a quiet street where yellow and red leaves have covered the street. It is a beautiful afternoon, the sun is shining upon that person. A little wind is blowing. Some nice coffee shop, flower shop, and book store is near the end of the road. It is beside a lake. Birds are singing.”		Coder 1: 2 counts Coder 2: 2 counts	Coder 1: 3 counts Coder 2: 3 counts
“I thought it was a beautiful composition. All the instruments together sounded great and It was very relaxing. It took my mind away from the stresses involved with school right now. I want to listen to classical music when I study, I think it will help me concentrate. I wish I could play the piano now. I pictured a sunny day, on like a beach or in the forest. It was nice to listen to.”	Coder 1: 5 counts Coder 2: 5 counts		

**Table 4: Chi-square results for number of self vs. other focused thoughts across music conditions**

Condition	Focus			Total
	Neither	Self	Other	
White Noise	19	10	5	34
Major	6	26*	4	36
Minor	21	4*	13	38
Total	46	40	22	108

\* denotes a significant difference between cell counts in each Condition at the 0.05 level.

	Value	Df	Asymp Sig. (2-sided)
Pearson Chi-Square	33.925	4	0.000
Likelihood Ratio	35.423	4	0.000
N of Valid Cases	108		

## 5.3 Discussion

Taken together, these results demonstrate that auditory transportation (transportation without a narrative) is a real phenomenon that is experienced. Specifically, it manifests more strongly in cases where the music is in the major mode versus the minor mode and the white noise mode (control). Among those who experience transportation in the major mode, there is also a significant prominence of self-focused thoughts. Still, what remains unclear is whether transportation can readily be generalized to all cases of major mode music vs. minor mode and white noise, and further if this was influenced by familiarity with the songs. As the songs differed across conditions, these effects could be influenced by other variables including the familiarity, song composition, artist, instrumentation and tempo, to name a few. The following experiment attempts to replicate these findings by utilizing the same song across conditions.

## Chapter 6

### 6 Experiment 1

The pretest indicates that transportation occurs while listening to music, and further, that levels of transportation are significantly higher when the music is in major mode. However, two critical components of the prior experiment also present fundamental weaknesses. First, the musical pieces used in each condition were different, and so the transportation effects found across the major and minor mode pieces cannot be readily generalized for all cases comparing major and minor mode music. Second, the minor mode piece was also atonal rather than just minor. Atonal music is characterized by dissonant chords typically rated as highly displeasing to Western cultural taste (c.f. Bruner 1990). To get around these limitations, Experiment 1 seeks to replicate these findings by using the same song in both major and minor mode.

#### 6.1 Method

*6.1.1 Participants and Design.* 95 undergraduate students were recruited to participate in this study. Experiment 1 follows 3-way (mode: major vs. minor vs. white noise/control) between subjects design. The song used in this experiment was Django Reinhardt's "Minor Swing", further modified by the software program, Melodyne, into the major mode. Both versions lasted approximately 3 minutes, 16 seconds. The white noise condition was also modified with the program Audacity version 2.0, to match this length.

A missing value analysis showed a total of 7 missing values. Due to the small number of missing values missing at random (Little's MCAR test,  $\chi^2(20) = 15.30, p > 0.76$ ), these values were replaced with that variable's overall mean. Further, one participant was removed for invariance in responses. The final sample consisted of  $N = 94$  (65% female, mean age range 19-22).

**6.1.2 Dependent Measures.** After exposure to one of three music conditions, participants were presented with the same dependent measures as the pretest. In addition to socio demographics, control variables that may be related to transportation were also included: need for cognition (Cacioppo and Petty 1982), absorption (Tellegen and Atkinson 1974), nostalgia proneness (Holbrook 1993) and musical preferences.

## 6.2 Results

**6.2.1 Construct Validity.** Once again, to assess the validity of the adapted auditory transportation scale, an exploratory factor analysis using principal component extraction method with a varimax rotation was again used. The Kaiser-Meyer-Olkin measure of sampling adequacy of 0.79 indicated that the data was suitable for principal component analysis. Further, Bartlett's test of sphericity was also significant ( $p < 0.001$ ), indicating that the factor analysis procedure was appropriate.

Three factors were extracted with a cumulative variance of 61.35%. The same interpretation based on the pretest factors remains. Factor 1 captures Imagery and Emotional Involvement and includes items 1, 3, 4, 6 and 7. Factor 2 captures Self-Song Elaboration and includes items 8, 10 and 11. Factor 3 captures Cognitive Attention and includes items 2 and 9. Item 5 ("After the sound ended, I found it easy to put it out of my

mind”) was removed for high cross-loading on Factors 1 and 3. In addition, item 3 (“I could picture myself in the images I had created from the sound”) also required additional modification; a path from Factor 2 to item 3 improved model fit results.

**Table 5: Rotated component matrix for Auditory Transportation items**

	Component		
	Imagery and Emotional Involvement	Cognitive Attention	Self-Song Elaboration
4. I was mentally involved in the sound while listening to it.	0.848		
1. While I was listening, I could easily picture images.	0.840		
7. The sounds affected me emotionally.	0.755		
3. I could picture myself in the images I had created from the sounds.	0.688	0.501	
6. I wanted to keep listening to the sound.	0.687		
8. I found myself thinking of ways the sound could have turned out differently		0.733	
10. The images I had from the sounds are relevant to my everyday life.		0.669	
11. The images from the sounds have changed my life.		0.609	
2. While I was listening, activity going on in the room around me was on my mind.			0.834
9. I found my mind wandering while listening to the sounds.			0.705
5. After the sound ended, I found it easy to put it out of my mind.	-0.372	0.358	0.389

Indeed a confirmatory factor analysis based on three first-order factors with auditory transportation as the higher-order latent factor showed adequate model fit results:

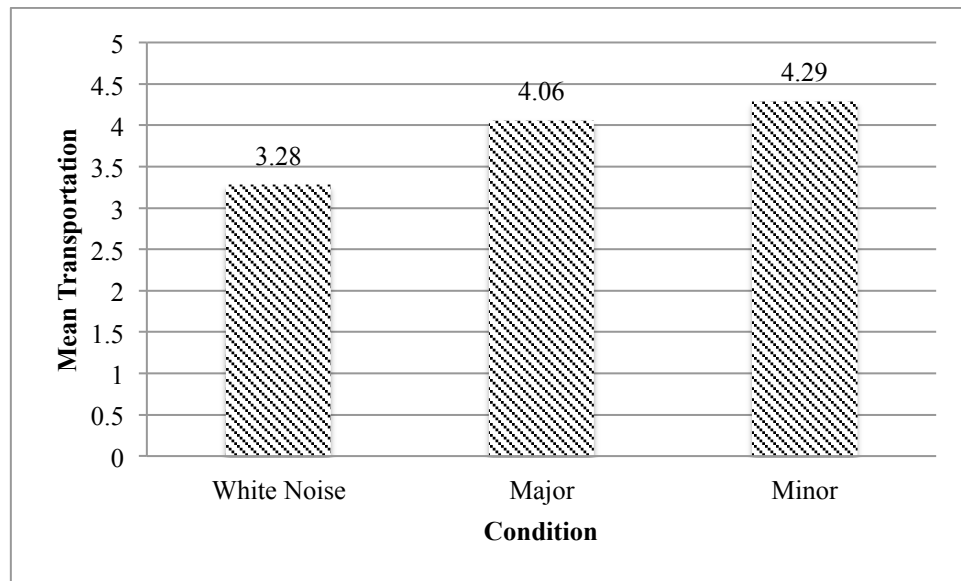
$\chi^2(31) = 51.787, p < 0.05$ ; GFI = 0.897; RMR = 0.225; CFI = 0.931; RMSEA = 0.085. Beta weights were all positive and significant. Modification indices suggested adding a path from item 6 (“I wanted to keep listening”) to item 11 (“Changed my life”). However, this is not theoretically meaningful, and so item 6 was dropped for this reason and high cross-loading. Subsequent model fit results were greatly improved:  $\chi^2(17) = 10.097, p > 0.9$ ; GFI = 0.974; RMR = 0.134; CFI = 1.00; RMSEA = 0.000. Based on these results, the adapted auditory transportation scale replicates the pretest findings, and demonstrates that it is comprised of three correlated first order factors that together predict a higher-order auditory transportation construct.

**6.2.2 Experimental Results.** An ANOVA compared the mean self-reported transportation score (Cronbach’s  $\alpha = 0.801$ ) across music mode conditions: control/white noise ( $N = 31$ ), major music ( $N = 33$ ), minor music ( $N = 30$ ). This analysis was statistically significant,  $F(2, 85) = 5.60, p < 0.01$ . Among the control variables, only music preference ( $p < 0.03$ ) was statistically significant.

To assess *HI*, a pairwise comparison was obtained. Results demonstrate that the mean transportation in the major music condition ( $M = 4.06, SD = 0.16$ ) was significantly higher than the mean transportation in the control condition (white noise) ( $M = 3.38, SD = 0.97$ ) ( $p < 0.05$ ). The mean transportation in the minor music condition ( $M = 4.29, SD = 0.72$ ) was also significantly higher than in the control condition ( $p < 0.01$ ). These results replicate and support *HI*, demonstrating that auditory stimuli (music) result in significantly more transportation compared to the control, white noise condition.

Hypothesis 2 further suggests that major mode music should be significantly more transporting than minor mode music. However, these results were not significant.

Specifically, the mean transportation in the minor mode is higher than the mean transportation in major mode ( $M = 4.29$  vs.  $M = 4.06$ ), though this is insignificant ( $p > 0.43$ ). As a result, there is no support for  $H2$ .



**Figure 3: Transportation levels across music mode conditions**  
(Note: minor mode is the original composition)

Last, two independent coders blind to the hypothesis rated the free thought listings in each music condition across three categories: “self” focused words (e.g. I, we, me), “other” focused words (e.g. he/she, they, them), and “neither” (when the perspective was unclear). Based on the preceding mean transportation levels, the minor mode condition was deemed to be the most transporting, followed by the major mode and control conditions. Chi-square results suggest that there is a marginally significant difference between the observed and expected frequencies of thoughts per condition [ $\chi^2(4) = 8.83, p = 0.065$ ]. However, the white noise condition elicited the highest count of “self” focus

thoughts across conditions ( $p < 0.05$ ) and the rest of the cell counts were not significantly different from each other. As a result, there is no support for  $H3$ .

**Table 6: Chi-square results for the number of self vs. other focused thoughts across music conditions**

Condition	Focus			Total
	Neither	Self	Other	
White Noise	6	24*	1	31
Major	9	16	6	31
Minor	10	15	8	33
Total	25	55	15	95

\* denotes a significant difference between cell counts in each Condition at the 0.05 level.

	Value	Df	Asymp Sig. (2-sided)
Pearson Chi-Square	8.834	4	0.065
Likelihood Ratio	10.047	4	0.040
Linear-by-Linear Association	0.389	1	0.533
N of Valid Cases	95		

## 6.3 Discussion

This experiment set out to address two key confounds found in the pretest: the use of different songs across experimental conditions, and the use of an atonal minor song in the minor mode condition. By using Django Reinhardt's "Minor Swing" for the minor condition, as well as a professionally modified major mode version for the major condition, this study was able to address these issues.

Results demonstrate that the primary effect of auditory transportation is a robust one. It occurs both when songs are different across conditions, as well as when the song is the same (when compared to white noise). In this experiment, transportation levels were not significantly different across the major and minor mode conditions. One possible



reason for this is that the song was originally composed for the minor mode, and so transposing it to a major mode may have altered the pleasantness of some of the melody resulting in the minor mode being slightly (but not significantly) more transporting. Alternatively, it may be that both the original and the manipulated major mode versions sounded comparatively similar such that they were both equally transporting and thus not significantly different. Finally, familiarity with the song should have been measured and used as a covariate. It is possible that participant familiarity with the song influenced the transportation levels found with the original (minor) vs. the modified (major) compositions. Future work should strive to address these limitations.

Finally, analysis of “self” vs. “other” focused thoughts showed that this too had similar results. While there was no significant difference in “self” vs. “other” focused thoughts across the major and minor mode conditions, there were considerably more “self” vs. “other” focused thoughts overall in just the music conditions (excluding the white noise). One possible reason for this is that music may in and of itself encourage a more self-focused style of thinking. Up to now transportation has been investigated with visual stimuli. By removing the visual domain and focusing only on sound, it is possible that participants engaged with the sounds in a free and more self-directed manner. As a result, it is further possible that while more pleasurable music may encourage more “self” focus than unpleasurable music, so does the nature of music stimuli versus other more directed (e.g. visual) stimuli.

## Chapter 7

### 7 Experiment 2

Returning to the original thrust of this research, this experiment seeks to include participants in the song choice to be used in the experiment. As described in the previous literature review, the study of music in marketing has often been limited to experimentally controlled pieces. While this helped ensure that relationships were carefully controlled and validated, it also left an important gap regarding how consumers experience music in their daily lives. By including participants in their song choice, this study not only addresses one of the more prominent gaps regarding the study of music consumption in consumer behavior, but it also adds further insight into how transportation works under these more externally valid conditions. In summary, the purpose of Experiment 2 is to determine how transportation occurs during personally chosen songs, and further, if transportation influences the degree to which a listener feels different at the end.

*Transportation and Song Affect.* Transportation theory suggests that transported individuals experience strong affective reactions (Green and Brock 2000). However, as discussed, this theory has been limited to use with visual narrative stimuli. The question remains as to how personally-charged songs, which differ in their perceived affect and valence, influence the transportation experience.

Transportation is suggested to be an enjoyable experience in and of itself, regardless of how positive the content of the narrative may be (Green 2004; Green et al.

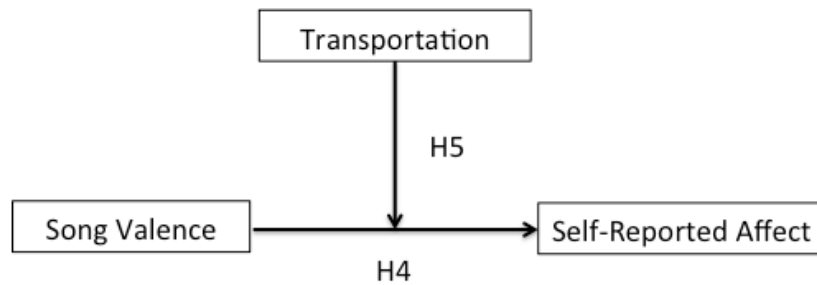
2004). In fact, the enjoyable experience of leaving behind one's world to engage in an altered fantasy even drives the desire to consume narratives that fall within the horror and suspense genres. Paraphrasing from Green (2004): story elements can range from the horrific to the sublime, but what ultimately results in enjoyment is the actual feeling of being transported from one's present surroundings to a different world.

I argue that transportation is likely to occur with both happy and sad music, particularly when the song choice is personal, simply because the experience allows for personal escape and reprieve. However, what I believe will differentiate this experience across groups is the resulting affect. Music theory demonstrates that positively (i.e. happy) vs. negatively (i.e. sad) charged songs create congruent affective states (for a lengthier discussion, see Levitin and Tirovolas (2009)). In the context of this research however, it is not yet clear how transportation informs this phenomenon. I suggest that transportation can moderate the relationship between the listening experience and resulting affect, whereby the greater the self-reported transportation, the more congruent the self-reported affect is with the song's valence.

H4: a) A happy (vs. control/white noise) song condition will result in higher self-reported positive affect ratings.

b) A sad (vs. control/white noise) song condition will result in lower self-reported positive affect ratings.

H5: Self-reported transportation will moderate the relationship between song valence and self-reported affect. The greater the transportation level, the more congruent the song valence and self-reported affect will be.



**Figure 4: Experiment 2 Model**

## 7.1 Method

**7.1.1 Participants and Design.** 90 undergraduate students (54% male, mean age range 19-22) were recruited to participate in exchange for course credit. This study utilizes a 3-way (song type: happy vs. sad vs. white noise/control) between-subjects design. Participants were instructed to prepare and bring both a favourite happy and favourite sad song on a portable music player to the lab. During the study, participants were randomly assigned to either the happy, sad, or control condition.

**7.1.2 Dependent Measures.** The same protocol and measures used in Experiment 1 were administered. Control measures included absorption (Tellegen and Atkinson 1974), need for cognition (Cacioppo and Petty 1982), nostalgia proneness (Holbrook 1993), and involvement (Zaichowsky 1985). After song exposure, perceived happiness levels associated with the song choices were measured with three items: “How does this song make you feel?” (1-Very happy, 7- Very unhappy), “Overall, how does this song make you feel right now?” (1-Very unhappy, 7-Very happy), and “What level of happiness best describes you right now?” (1-Very unhappy, 7-Very happy). This served as a manipulation check. In addition, affect (Mehrabian and Russell 1974) was also

measured as the main dependent outcome. Finally, participants were asked to provide detail regarding which song they brought and were assigned to (title and artist).

## 7.2 Results

**7.2.1 Manipulation check.** There was a significant difference in perceived happiness ratings of the songs participants were assigned to across the three song conditions  $F(2, 85) = 84.316, p < 0.001$ . A Tukey HSD test ( $p < 0.05$ ) further showed that those assigned to the happy song condition rated their song significantly happier ( $M = 3.93, SD = 0.39$ ) than those assigned to the sad ( $M = 2.25, SD = 0.55$ ) and control ( $M = 3.12, SD = 0.54$ ) conditions.

**7.2.2 Descriptions of participant chosen songs.** The songs used by participants included a range of musical genres and popularity. A table summarizing the songs and artists used by participants organized by condition is provided in Appendix D.

**7.2.3 Descriptive statistics.** The descriptive statistics are provided in the table below. A total of seventy-four cases were valid as a result of missing values. Due to the minor number of missing values, a mean substitution was used to fill in the missing values for need for cognition, nostalgia, transportation, involvement and happiness. This brings the total sample to 90. In addition, while happiness appears to have strong kurtosis (-1.039) imputing the mean into the two missing cases brings this value to within the appropriate boundaries (-1 to +1).

**7.2.4 Discriminant validity.** A few steps were taken to assess the discriminant validity of auditory transportation and affect (Mehrabian and Russell 1974). First, a bivariate correlation was conducted. Results show that most correlations are low and not

significant. The only exception was item 6 (“I wanted to keep listening to the song”), which was moderately correlated with annoyed ( $r = -0.648$ ) and dissatisfied ( $r = -0.624$ ). Second, an exploratory factor analysis provided a four-factor solution with total extracted variance of 69.83%. This solution captures the three dimensions of auditory transportation (Imagery and Emotional Involvement, Self-Song Identification and Cognitive Attention), and an additional fourth factor captures the bipolar affect measures from Mehrabian and Russell’s (1974) affect and arousal scale.

Finally, discriminant validity analysis using the chi-square difference test also provided support for the existence of two separate constructs. First, a constrained model where the first-order transportation constructs were set to perfectly correlate with affect yielded the following chi-square:  $\chi^2 (73) = 216.067, p < 0.01$ . Following this, the model was unconstrained and the transportation and affect constructs were allowed to freely correlate, yielding the following chi-square:  $\chi^2 (70) = 163.391, p < 0.01$ . The chi-square difference test demonstrates that the unconstrained model provides a significant and improved chi-square  $\chi^2 (3) = 52.682, p < 0.01$ , providing support for the discriminant validity of the transportation and affect constructs.

Confirmatory factor analysis for the three first-order factors with auditory transportation as the higher-order latent factor yielded the following model fit results:  $\chi^2 (24) = 49.96, p < 0.05$ ; GFI = 0.890; RMR = 0.237; CFI = 0.927; RMSEA = 0.110. Modification indices suggested adding a path from the third factor (Cognitive Attention) to item 8 (“I found myself thinking of ways the song could have turned out differently”). Based on this suggestion, and its appropriate theoretical implication, this path was added. Subsequent model fit results were greatly improved:  $\chi^2 (23) = 42.616, p < 0.01$ ; GFI =

0.903; RMR = 0.179; CFI= 0.945; RMSEA= 0.098. Confirmatory factor analysis for the affect construct also yielded moderately acceptable model fit statistics:  $\chi^2 (5) = 43.256, p < 0.001$ ; GFI= 0.807; RMR = 0.185; CFI= 0.860; RMSEA= 0.293. The modification indices suggested adding a path from item 5 (contented) to item 1 (happy), which resulted in the following model fit results:  $\chi^2 (4) = 30.776, p < 0.001$ ; GFI= 0.885; RMR = 0.193; CFI= 0.885; RMSEA= 0.274. Additional suggested modification allowing errors 4 and 5 to covary, as well as errors 1 and 4 to covary yielded the following improved model fit:  $\chi^2 (2) = 0.396, p > 0.05$ ; GFI= 0.99; RMR = 0.01; CFI= 1.00; RMSEA= 0.00. Given their content overlap (hopeful with content and happy with hopeful), these relationships were deemed appropriate. Based on these results, subsequent analyses using auditory transportation and affect as separate composites was deemed appropriate.

**Table 7: Rotated component matrix of Auditory Transportation and Affect items**

	Component			
	Imagery and Emotional Involvement	Affect	Cognitive Attention	Self-Song Elaboration
1. While I was listening, I could easily picture images.	0.892			
4. I was mentally involved in the song while listening to it.	0.858			
3. I could picture myself in the images I had created from the music.	0.835			
6. I wanted to keep listening to the song.	0.693	0.439		
7. The song affected me emotionally.	0.687			
Unhappy-Happy		0.885		
Melancholic-Contented		0.840		
Despairing-Hopeful		0.810		
Pleased-Annoyed	-0.455	-0.755		
Satisfied-Dissatisfied	-0.448	-0.718		
2. While I was listening, activity going on in the room around me was on my mind.			0.855	
9. I found my mind wandering while listening to the song.			0.640	
5. After the song ended, I found it easy to put it out of my mind.			0.528	
11. The images from the song have changed my life.	0.423			0.675
10. The images I had from the song are relevant to my everyday life.	0.458			0.633
8. I found myself thinking of ways the song could have turned out differently				0.579

**7.2.5 Self-reported affect.** There is support for *H4a* and *H4b*. A univariate between-subjects ANOVA compared the mean self-reported affect (happiness) across the happy, sad and control song conditions with need for cognition, nostalgia, absorption, affect, arousal and involvement as control variables. There was a statistically significant



difference in reported affect levels,  $F(2,87) = 37.17, p < 0.001$ . A pairwise comparison further showed that those in the happy song condition ( $M = 5.63, SD = 0.84$ ) had significantly higher resulting positive affect (happiness) ratings than those in the sad ( $M = 3.91, SD = 0.57$ ) ( $p < 0.001$ ) and control ( $M = 3.64, SD = 0.53$ ) ( $p < 0.05$ ) conditions. Specifically, using an average of the affect items (Mehrabian and Russell 1974), participants who listened to the happy favorite song reported a congruent and significantly higher affective state, while those who listened to the sad favorite song showed a congruent and significantly lower affective rating when compared to the control condition. As a result,  $H4a$  and  $H4b$  are supported as the sad song condition demonstrated significantly lower self-reported affect than the control condition, while the happy song condition demonstrated significantly higher self-reported affect.

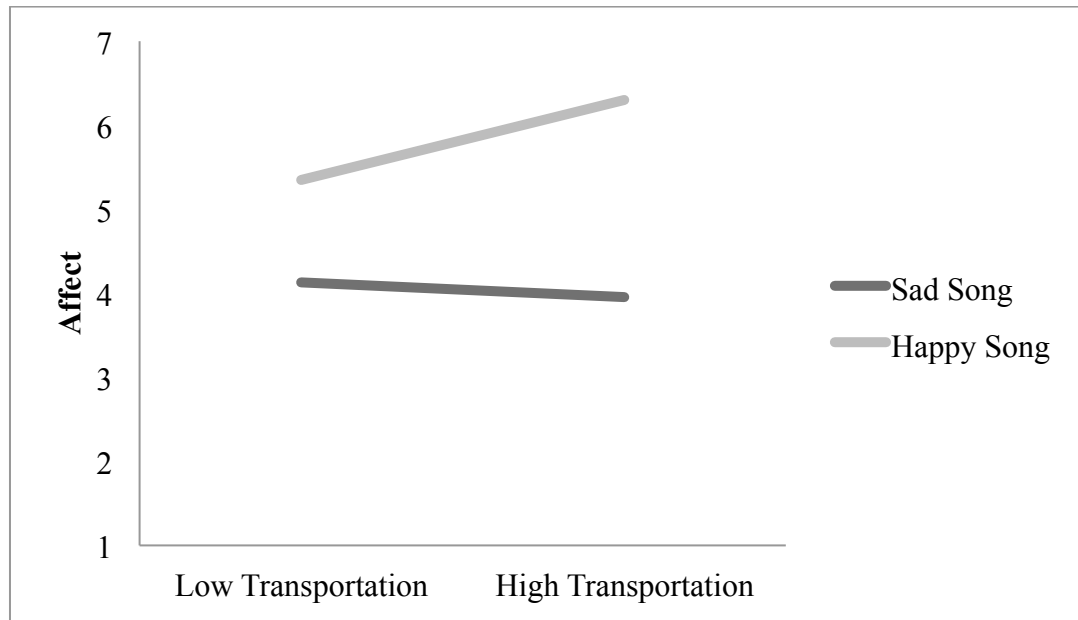
**Table 8: Descriptive statistics for Experiment 2**

	N	Mean	SD	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
Need Cog	87	4.66	0.81	-0.012	0.258	0.200	0.511
Nostalgia	85	3.62	0.49	-0.136	0.261	-0.369	0.517
Absorption	90	4.92	0.95	-0.484	0.254	-0.068	0.503
Transportation	87	4.07	1.15	-0.599	0.258	-0.504	0.511
Affect	90	4.40	1.31	0.014	0.254	-0.722	0.503
Arousal	90	3.42	1.13	0.289	0.254	0.016	0.503
Involvement	86	4.46	1.88	-0.807	0.260	-0.703	0.514
Happiness	88	3.11	0.85	-0.178	0.257	-1.039	0.508
Valid N	74						

**Table 9: Descriptive statistics for Experiment 2 with no missing values**

	N	Mean	SD	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
Need Cog	90	4.66	0.80	-0.012	0.254	0.311	0.503
Nostalgia	90	3.62	0.47	-0.139	0.254	-0.211	0.503
Absorption	90	4.92	0.95	-0.484	0.254	-0.068	0.503
Transportation	90	4.07	1.13	-0.608	0.254	-0.416	0.503
Affect	90	4.40	1.31	0.014	0.254	-0.722	0.503
Arousal	90	3.42	1.13	0.289	0.254	0.016	0.503
Involvement	90	4.46	1.84	-0.825	0.254	-0.593	0.503
Happiness	90	3.11	0.84	-0.180	0.254	-0.993	0.503
Valid N	90						

**7.2.6 Transportation as a moderator.** There is mixed support for *H5*. To analyze transportation (Cronbach's  $\alpha = 0.842$ ) as a moderator of the relationship between self-chosen songs and resulting affect, only the happy and sad song conditions were included ( $N = 60$ ). As expected, song valence conditions significantly predicted self-reported affect,  $F(6, 53) = 11.56, p < 0.001$ , and the interaction between self-reported transportation and song condition was also significant ( $\beta = 0.75, t(53) = 2.36, p < 0.01$ ) when controlling for the above covariates. This interaction was further explored using the method of Aiken and West (1991), which found a positive significant relationship between the happy song valence condition and transportation on self-reported affect (+1SD),  $\beta = 0.63, t(53) = 2.58, p < 0.01$ . In other words, highly transported individuals were significantly happier than non-transported individuals after listening to their preferred happy song. There was no significant relationship between the sad song valence condition and transportation on self-reported affect levels.



**Figure 5: Spotlight analysis on interaction between transportation and song valence on reported affect levels**

### 7.3 Discussion

This experiment provides evidence for auditory transportation's ability to amplify affective reactions. Specifically, when hearing a favorite happy song and engaging in successful transportation, the listener is left significantly happier than if there was no transportation. On the other hand, when the favorite song is of the sad kind, the effect of transportation appears to be negligible. That is, it fails to produce an amplifying effect and does not leave the listener any sadder than if they had heard their favorite song in passing.

This study demonstrates that the more transported the individual, the greater the congruence between the song's valence and self-reported affect in cases where the song has a positive affective connotation. While the same cannot be said for sad songs, this does suggest that music with particularly sensitive personal meanings may result in a more serious affective impact if the listener truly engages with it.

In the final experiment, a more systematic manipulation of the different theoretical components (cognition, imagery, affect) of transportation is conducted. In addition, this next study assesses how transportation is moderated by important trait variables and further, how this influences consumer relevant behavioral intentions.

## Chapter 8

### 8 Experiment 3

This final experiment attempts to: 1) systematically investigate how each component of transportation theory contributes to transportation, 2) explore a unique theoretical consequence of transportation: perceived positive transformation, and 3) determine what individual differences interact with transportation to influence downstream marketing-related variables.

*Transportation Theory and Transportation Instructions.* The three components of transportation theory (cognition, emotion, imagery) have been part of Green and Brock's (2000) transportation scale since its initial theoretical development. However, it seems that research on transportation theory has implicitly relied on the idea of their existence without any added investigation. Further, there appears to be no systematic examination of how these three components independently inform transportation theory (c.f. Green 2004; Green et al. 2008; Hende and Schoormans 2012; Mazzocco et al. 2010). As a result, it seems that a more careful analysis is needed.

Green and colleagues have suggested that there may be more to understanding how transportation occurs. Specifically, Green (2004) suggests that it would be a worthy pursuit to disentangle cognitions, emotions and imagery, to objectively assess how they can each independently inform transportation. One avenue in which this may be accomplished is by using transportation instructions.

*Narrative* transportation instruction manipulations have previously been implemented by Green and Brock (2000), Green (2004) and Escalas (2004). What such instructions intend to accomplish is to induce a state of relaxation and a focus on the story at hand to assist in transportation, or alternatively, to disrupt successful transportation by alerting participants to spelling and grammar mistakes (see Appendix F for examples). Variations in the success of these manipulations have shown that disrupting transportation works as intended (i.e. Green 2004), while enhancing transportation only sometimes succeeds (i.e. Green and Brock 2000 vs. Escalas 2004).

Still, what remains unclear is how each component that is inherent to the transportation experience; cognition, affect and imagery, independently contributes to successful transportation. This experiment aims to systematically examine each component through the use of instruction manipulations.

H6: Transportation levels will differ across the cognitive, emotive and imagery-based instruction groups.

**Table 10: Transportation instruction manipulations used in Experiment 3**

<b>Condition</b>	<b>Manipulation</b>
<b>Baseline (based on Green and Brock 2000)</b>	As we are interested in your natural responses to the following music, please try to relax and listen to it as if you were leisurely listening to it in the comfort of your own home. We will ask you some questions about your experience after.  When you are ready, proceed to the next page.
<b>Emotion focus</b>	As we are interested in your natural responses to the following music, please try to relax and listen to it as if you were leisurely listening to it in the comfort of your own home. Focus only on the EMOTIONS that you feel. We will ask you some questions about your experience after.  When you are ready, proceed to the next page.
<b>Cognition focus</b>	As we are interested in your natural responses to the following music, please try to relax and listen to it as if you were leisurely listening to it in the comfort of your own home. Focus only on the THOUGHTS that come into your mind. We will ask you some questions about your experience after.  When you are ready, proceed to the next page.
<b>Imagery focus</b>	As we are interested in your natural responses to the following music, please try to relax and listen to it as if you were leisurely listening to it in the comfort of your own home. Focus only on the IMAGES that you see. We will ask you some questions about your experience after.  When you are ready, proceed to the next page.

*Perceived Positive Transformation.* Green and colleagues (2000; 2004) suggest that one of the benefits of being transported is the resulting change that can be experienced. In fact, the initial theory of transportation states that “the individual comes back somewhat changed by the journey” (Green and Brock 2000, 701). Green and colleagues have discussed this idea in their work using visual media (i.e. films, books), suggesting that changes via attitudes and beliefs towards characters or story content demonstrates the individual has experienced change. Still, using narrative-related attitudes and beliefs to reflect “coming back changed by the journey” seems to limit this change to a content specific effect rather than a more pervasive one. In a later paper, Green (2004) begins to

address this theoretically by suggesting that consuming films or books allows the individual to engage in identity play and explore possible selves with little risk. By doing so, the individual then has the opportunity experience enjoyment through transformation that transcends the storyline to their everyday reality (Green 2004, 317-318). Based on the assertion that transportation is enjoyable, it is logical to expect that the transformation will also be positive. Still, this has remained a theoretical assertion. To the best of this author's knowledge at this point in time, there has not been any measure of the perception of positive transformation resulting from successful transportation.

In research on music listening, we know of music's ability to alter affective states (Levitin and Tirovolas 2009), make mundane activities more entertaining (Juslin et al. 2008;), and provide psychological relief (McCaffrey and Good 2000). These different works provide some indication that music can provide transformational effects to its listeners. However, I suggest that this effect must be explained by successful auditory transportation, as Green and colleagues indicate that a change to the individual is one of the main consequences of transportation theory.

H7: Self-reported transportation will predict perceived positive transformation.

*Openness to Experience.* Openness to experience or Intellect/Imagination (according to Donellan et al. 2006), is one of the five basic dimensions of personality. It is a factor in a five-factor model commonly referred to as the Big Five (c.f. McCrae and John 1992). The Big Five is represented in various versions and iterations (e.g. the 181-item NEO Personality Inventory, the 240-item Revised NEO Personality Inventory, the 50-item



International Personality Pool – Five Factor Model, the 44-item Big Five Inventory and the 20-item Mini International Personality Item Pool – Five Factor Model) and it is widely accepted as a valid measure of an individual's personality. Each of the five factors is a higher order latent dimension represented by a number of items, which together provide a well-rounded assessment of an individual's extraversion, agreeableness, conscientiousness, neuroticism and openness to experience.

Openness to experience assesses the degree to which an individual is open to fantasies, aesthetics, feelings, sensations, values and ideas (John and Srivastava 1999; McCrae and John 1992; McCrae and Costa 1997). It is also highly correlated with divergent thinking (creativity), intelligence and aesthetic impressions (McCrae and John 1992), and moderately correlated with extraversion (Costa, McCrae and Dye 1991).

In this study, openness to experience is measured to assess how it interacts with self-reported transportation on perceived positive transformation. I suggest that a high level of openness to experience will increase perceptions of positive transformation. This is because an individual with a high degree of openness to experience will by nature appreciate a new and novel aesthetic experience (the song) and be more inclined to engage in fantasies, open and independent thinking, and to appreciate it as a unique aesthetic experience. Conversely, a low level of openness to experience will decrease perceptions of positive transformation, precisely because these personality qualities will inhibit the ability to perceive and appreciate the experience as a result of transportation through music.

H8: The relationship between self-reported transportation and perceived positive transformation will be moderated by openness to experience, where the greater the openness to experience, the greater the effect.

*Perceived Positive Transformation and Giving.* Experiencing positive transformation as a result of auditory transportation may lead to engaging in giving behavioral intentions. Research has shown that listening to music has the ability to influence people's moods and behavior (North, Tarrant and Hargreaves, 2004; Jacob, Gueguen and Boulbry, 2010; and Greitemeyer 2008, 2009, 2010). This body of literature shows that exposure to music with explicit prosocial lyrics (Greitemeyer 2008, 2009, 2010; Jacob et al. 2010) or which is mood manipulating (North et al. 2004) results in an increase in pro-social behaviors that range from having a high (effortful) cost (handing out leaflets for a period of time) (North et al. 2004) to a lower cost (tipping at a restaurant) (Jacob et al. 2010). These works do not assess transportation, yet Greitemeyer does suggest that this behavior is a result of learning that occurs through the General Learning Model (GLM) which includes cognitions, affect and arousal components, similar to the three components of transportation theory: cognition, affect and imagery.

This experiment measures additional positive consequences of perceived positive transformation, which can be broadly described as an overall willingness to be more giving. In other words, based on the evidence provided by Greitemeyer, North et al. and Jacob et al., it is possible that exposure to music and successful transportation may elicit other positive behavioral intentions mediated by perceived positive transformation, including giving. As the literature on positive affective states shows, being in a positive

state can lead to decisions that help maintain or enhance this state (Isen 2008). Here, opportunities for re-engaging with the experience are operationalized as willingness to share the experience with others (virality) and willingness to purchase the song (value). Further, willingness to help (volunteerism) is an additional pro-social measure that may extend prior work on music's ability to induce pro-social behaviors due to its affective influences (North et al. 2004). Indeed, there is nothing to suggest that the positive consequences of being transported should end with perceived positive transformation. We have yet to really test how long such effects last. While I do not explicitly measure the temporal degree to which transportation effects linger, this experiment does implicitly consider measures that include a longer temporal commitment (e.g., volunteering, virality). This experiment not only assesses how much "giving" successful transportation can induce, but inadvertently, it also captures how long the positive effects of transportation can last. These consequences will be mediated by perceived positive transformation.

H9: Perceived positive transformation will mediate the relationship between self-reported transportation and the three giving behaviors.

*Impulsivity.* Impulsivity is defined as a preference for smaller, immediate rewards over much larger, later rewards, even though there is a general preference for the larger rewards (Rook 1987, 88). Impulsivity is further characterized by a spontaneous positive affective reaction to the opportunity to act on one's urges (Rook 1987). Puri's (1996) Consumer Impulsiveness Scale suggests that impulsivity contains two independent

factors: prudence and hedonic (or impulsive). Prudence is a subscale that assesses the extent to which cognitions are used to respond to a potentially impulsive decision. Items that capture this subscale include: self-controlled, farsighted and restrained. The hedonic (impulsive) subscale captures the extent to which the individual uses their urges to respond to a potentially impulsive decision. Items for this subscale include: careless, impulsive and extravagant. Individuals who score high on impulsivity are defined by high hedonic scores and low prudence scores, while those who score in the middle are classified as moderates (Puri 1996).

Impulsivity has been included in a range of consumer behavior studies ranging from temporal decision-making (e.g. Hoch and Loewenstein 1991) to the role of affect and cognition (e.g. Shiv and Fedorikhin 1999). While there is an extensive body of literature on the effects of affect (positive vs. negative) on impulsive decision-making (e.g. Baumeister 2002; Isen and Means 1983; Loewenstein and Lerner 2003; Schwarz and Clore 2007; Tice, Bratslavsky and Baumeister 2001; Verdejo-Garcia et al. 2007), this research is not intended to delve into this area. Rather, only the evidence provided by the consequences on decisions when in a positive affective state is immediately relevant to the present research. Specifically, positive affect has been shown to influence a more efficient, heuristic, top-down processing of large amounts of information, to induce a broad (vs. narrow) chunking perspective on the evaluation of information, and to lead to selectively attend to emotion-relevant information (Bower 1981, 1991; Isen and Means 1983; Loewenstein and Lerner 2003; Schwarz and Clore 2007). Further, positive affect has also been shown to influence decision-making by showing that happier people make significantly quicker (more impulsive) decisions than less happy people, and that they

tend to make overly optimistic judgments and predictions (Isen and Means 1983; Loewenstein and Lerner 2003; Schwarz and Clore 2007).

In the tradition of Puri (1996), impulsivity is suggested to lead to decisions marked by more affectively-charged urges. I suggest that this personality trait should interact with perceived positive transformation. In other words, after experiencing a song and the perceived positive transformation (as a result of successful transportation), subsequent decisions should further be influenced by this resulting positive state. If transportation is suggested to be an enjoyable experience in and of itself (Green and Brock 2000), then it is likely that highly impulsive individuals will be more likely to engage in decisions that contribute to maintaining this overall state. Simply put, decisions that offer the ability to prolong and engage the positive affective state will be sought, particularly by highly impulsive individuals.

H10: The relationship between perceived positive transformation and a) willingness to share the experience with others (virality), and b) willingness to purchase the song (value) will be moderated by impulsivity, where the greater the impulsivity, the greater the effect.

*Empathy.* Empathy is an emotional response to another individual's position. While there are a variety of definitions for empathy, the present research uses the definition by Eisenberg and Miller (1987), which defines empathy as an affective state stemming from the understanding of another's emotional state or condition. Empathy is often

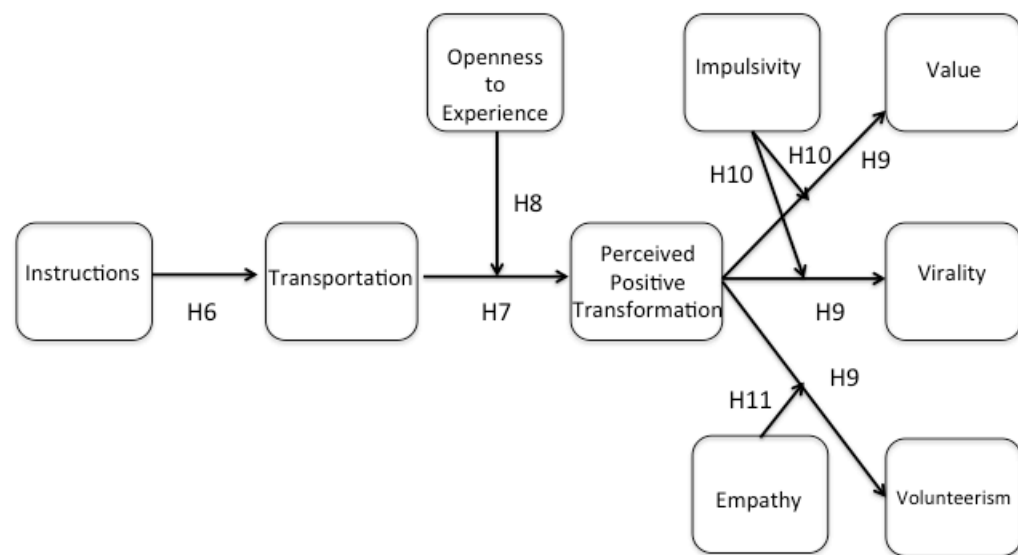
characterized by reactions like emotional matching or experiencing the same emotions of those being focused upon.

One of the most widely used scales for empathy is Mehrabian and Epstein's (1972) Scale of Emotional Tendency. This scale captures the many ways in which empathy manifests, including: emotional contagion, appreciation of the feelings of unfamiliar or distant others, extreme emotional responsiveness, the tendency to be moved by others' positive emotional experiences, sympathetic tendencies, and willingness to have contact with others who have problems (Eisenberg and Miller 1987).

Literature investigating the relationship between empathy, its many facets, and prosocial behaviours has widely agreed on their positive and significant relationship. In a meta-analysis on empathy studies, measuring empathy using a questionnaire showed a significantly positive relationship with prosocial measures including volunteering to help handicapped children and sharing candy with the poor (Eisenberg and Miller 1987). In the present study, a similar prosocial request will be used, except it appears as an unrelated and separate task. Specifically, I expect empathy to interact with perceived positive transformation on prosocial volunteering behavior. Since perceived positive transformation is expected to result from successful self-reported transportation, this positive reaction, in combination with a high degree of empathy (recall that it includes emotional contagion and emotional responsiveness), should enhance the degree of volunteering compliance. This is because empathy is known to enhance positive attitudes towards the focal object (Eisenberg and Miller 1987; Escalas and Stern 2003), which in this case would be an unrelated graduate student. Furthermore, this is in keeping with literature on positive affect that suggests that individuals would be motivated to make

decisions to help maintain or enhance their currently desirable state (c.f. Loewenstein and Lerner 2003; Schwarz and Clore 2007).

H11: The effect of perceived positive transformation on willingness to help (volunteerism) will be moderated by empathy, where the greater the empathy, the greater the effect.



**Figure 6: Experiment 3 Model**

## 8.1 Method

**8.1.1 Participants and Design.** Undergraduate students (N = 180, 56% female, mean age range 19-22) were recruited to participate in this study in exchange for course credit. This study involves a 5-way (Instructions: none vs. baseline vs. cognitive vs. emotive vs. imagery) between-subjects design.

**8.1.2 Instructions.** In this study, each component of transportation theory has its own instruction type, such that cognitive/emotive/imagery instructions instruct participants to “focus on the thoughts/emotions/images” they are experiencing. In addition, this study utilizes a control group where no instructions are provided, as well as a baseline transportation instruction group (replicating Green 2004) (see Table 6).

**8.1.3 Song Pretest.** The song pretest included five (English language) songs chosen from pop charts around the world. Participants ( $N = 30$ ) were asked to listen to each song where the order of the songs presented was random and counter-balanced. After listening to each song on individual headsets, participants were asked to respond with their level of affect (“How does this song make you feel?” 1-very unhappy, 7-very happy and 1- very bad, 1-very good, “How do you feel right now?” 1-sad face, 7-happy face). In addition, each participant was asked whether they found the song familiar (yes/no/not sure), and if “yes” how familiar they found it (1-none, 2-a little, 3- some, 4-very familiar). The chosen song “Do the Whirlwind” by Architecture in Helsinki, achieved a mean affect rating of 4.51 ( $SD = 1.25$ ) and was rated as unknown by 29 out of 30 subjects. This mean affect rating was the most neutral result out of the five pretested songs.

**8.1.4 Protocol and Dependent Measures.** First, all participants were asked the same control measures as the previous experiments (affect, arousal, nostalgia proneness, absorption, need for cognition, involvement and musical preferences) as well as the three new trait measures: openness to experience, impulsivity and empathy. Next, participants saw one of five instruction manipulations and were asked to listen to the pretested, obscure pop song on individual headsets. Once the song was completed, a manipulation check was administered. This manipulation check involved two questions: 1) an open-



ended question that asks participants what they remember from the instructions they received before the song began, and 2) a closed response scale that asks participants to select what their instructions asked them to focus on (“thoughts”, “images”, “emotions”, “don’t remember”).

After the manipulation check, participants were asked to fill out the adapted transportation scale, to engage in free thought listing and to report their affect and arousal (Mehrabian and Russell 1974). Next, Likert-type questions (anchored by 1-strongly disagree/very little, 7-strongly agree/very much) regarding their perceived positive transformation were administered. Perceived positive transformation questions were pretested to ensure that they captured perceptions of felt positive change, and include: “I feel different now than I did before because of listening to the song”, “I don’t feel any different now than I did a few minutes ago”, “The song is the reason I feel better now than before” and “I believe I am happier now because of the song I just heard”. Next, questions assessing the three types of “giving” measures were administered. These were also pretested, and include measures that address virality (“I would recommend this song to others”, “I would share this song on a public online forum” and “I would share this song with my friends” anchored on 1-strongly disagree to 7-strongly agree), value (“How much would you be willing to pay for this song?”, “How much would you be willing to pay for a song that provided the same experience?” and “How much would you be willing to pay for a similar song?” anchored on \$0.00 and \$2.00), and volunteerism, positioned as an unrelated question based on a new study (“Would you be willing to help a Masters student with their data collection?”, “If yes, how much time would you be willing to give?”(in minutes)). Last, all participants were asked a number of socio-demographic questions and

two hypothesis guessing questions. The first pertained to the objective of the entire study and asked an open-ended question “What do you think this study was about?”. The second question pertained to the volunteerism cover story and asked participants whether they “suspected” that the Master’s research study was not real (yes/no). Following this, participants were thanked and debriefed.

## 8.2 Results

Of the 180 collected responses, 12 participants were removed due to inattention and low variability in responses for a final sample of  $N = 168$  (56% female). None of the remaining participants guessed the objective of the study. Tables 7 and 8 summarize the descriptive statistics and correlations for the variables of interest.

**Table 11: Descriptive statistics for constructs used in Experiment 3**

	N	Mean	SD	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
Affect	168	4.95	0.90	-0.176	0.187	-0.471	0.373
Arousal	168	3.35	0.76	0.239	0.187	-0.513	0.373
Absorption	168	4.90	0.86	0.063	0.187	-0.115	0.373
Need Cog	168	4.76	0.82	-0.043	0.187	0.132	0.373
Nostalgia	168	3.61	0.60	0.154	0.187	-0.098	0.373
Impulsive	168	3.24	0.66	0.516	0.187	0.912	0.373
Empathy	168	4.80	0.50	0.047	0.187	-0.774	0.373
Open Exp	168	5.21	1.00	-0.393	0.187	-0.334	0.373
Involvement	168	3.84	1.18	-0.643	0.187	0.143	0.373
Transportation	168	3.62	0.87	0.037	0.187	-0.361	0.373
Transformation	168	3.87	1.46	-0.191	0.187	-0.907	0.373
Virality	168	3.37	1.52	0.221	0.187	-0.794	0.373
Value	168	0.58	0.35	0.586	0.187	-0.113	0.373
Volunteer_time	85	17.68	14.23	1.590	0.261	2.410	0.517
Valid N	85						

**Table 12: Reliabilities and correlations for constructs used in Experiment 3**

		Correlations												
Construct	Alpha	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Affect	0.798	1												
2. Arousal	0.606	0.190 *	1											
3. Absorption	0.868	-0.002	0.113	1										
4. Need Cog.	0.884	0.077	0.052	0.306 **	1									
5. Nostalgia	0.743	0.000	-0.005	0.176 *	-0.048	1								
6. Impulsivity	0.706	-0.230 **	-0.056	0.062	0.277 **	-0.045	1							
7. Empathy	0.729	0.115	-0.062	0.253 **	0.094	0.166 *	0.038	1						
8. Open Exp.	0.719	0.050	-0.016	0.416 **	0.416 **	-0.082	-0.102	0.203 *	1					
9. Involvement	0.935	0.077	0.142	0.285 **	0.081	-0.014	0.040	0.057	0.184 *	1				
10. Transport	0.777	-0.046	0.203	0.409 ***	0.195 *	-0.082	0.176 *	0.066	0.221 *	0.712 **	1			
11. Transform	0.901	-0.102	0.041	0.240 **	0.088	-0.077	0.035	-0.036	0.155*	0.647 **	0.0641 **	1		
12. Virality	0.905	0.001	0.159 *	0.299 **	0.011	-0.015	0.134	-0.004	0.107	0.705 **	0.626 **	0.564 **	1	
13. Value	0.926	0.092	0.059	0.245 **	0.068	-0.028	-0.016	-0.012	0.062	0.503 **	0.464 **	0.347 **	0.556 **	1

Note: \* denotes significant at  $p < 0.05$ , \*\* significant at  $p < 0.01$ , \*\*\* significant at  $p < 0.001$

**8.2.1 Manipulation check.** The transportation instruction manipulation check failed to provide the necessary results. Participants in each condition (control, emotion, cognition, imagery and baseline) had between 37% to 74% accuracy when picking their appropriate instructions. An additional open-ended question asking participants to recall what instructions they had received prior to the song seems to be confounded with instructions participants recalled hearing at the beginning of their lab session. As a result, it is unclear whether any participants really understood what the transportation instruction protocol asked of them and if they had indeed followed these directions. While this manipulation check renders *H6* negligible, the rest of the analysis is not contingent on this and was carried out.

**8.2.2 Discriminant validity.** An analysis to assess the discriminant validity between auditory transportation and perceived positive transformation was conducted. First, a bivariate correlation analysis with the auditory transportation and transformation items was conducted. Results show that most correlations are low and not significant. The only exception was item 6 (“I wanted to keep listening to the song”) which was moderately correlated with “I feel different now than I did before” ( $r = 0.533$ ) and “I don’t feel any different now than I did a few minutes ago” ( $r = -0.559$ ), and item 7 (“The song affected me emotionally”), which was moderately correlated with the four transformation items (correlations ranged from  $r = 0.533$  to  $0.569$ ).

An additional exploratory factor analysis provided a four-factor solution with total extracted variance of 63.64%. This solution captures the three dimensions of auditory transportation (Imagery and Emotional Involvement, Self-Song Identification and Cognitive Attention), and an additional fourth factor captures the transformation items.

There is some cross loading among the high correlation items (items 6 and 7 with the transformation items). When these are removed, the factor solution provides a cleaner four factor structure.

**Table 13: Rotated component matrix of Auditory Transportation and Transformation items**

	Component			
	Transformation	Imagery and Emotional Involvement	Cognitive Attention	Self-Song Elaboration
The song is the reason I feel better now than before.	0.847			
I believe I am happier now since hearing the song.	0.839			
I feel different now than I did before because of listening to the song.	0.832			
I don't feel any different now than I did a few minutes ago.	-0.781			
7. The song affected me emotionally.	0.683	0.374		
1. While I was listening to the song, I could easily picture images.	0.389	0.339		
11. The images from the song have changed my life.		0.757		
10. The images I had from the song are relevant to my everyday life.		0.732		
3. I could picture myself in the images I had created from the music.		0.638		
2. While I was listening, activity going on in the room around me was on my mind.			0.754	
9. I found my mind wandering while listening to the song.			0.672	
4. I was mentally involved in the song while listening to it.	0.501		-0.545	
8. I found myself thinking of ways the song could have turned out differently.				0.826
5. After the song ended, I found it easy to put it out of my mind.				-0.447

Last, additional discriminant validity analysis using the chi-square difference test provided support for the existence of two separate constructs, transportation and transformation. First a constrained model where the first-order transportation constructs were set to perfectly correlate with transformation yielded the following chi-square:  $\chi^2(61) = 280.118, p < 0.01$ . Following this, the model was unconstrained and the transportation and transformation constructs were allowed to freely correlate, yielding the following chi-square:  $\chi^2(58) = 241.219, p < 0.01$ . The chi-square difference test demonstrates that the unconstrained model provides a significant and improved chi-square  $\chi^2(3) = 38.899, p < 0.01$ , providing support for the discriminant validity of the transportation and transformation constructs.

Finally, CFAs for both transportation and transformation were conducted. Results for transportation yielded the following model fit:  $\chi^2(24) = 81.244, p < 0.001$ ; GFI = 0.909; RMR = 0.176; CFI = 0.818; RMSEA = 0.120. Modification indices suggested adding a path from the third factor (Cognitive attention) to item 4 (“I was mentally involved in the song while listening to it”). Based on its theoretical implication and high cross loading, this was followed. The following model fit results showed great improvement and adequate model fit:  $\chi^2(23) = 65.334, p < 0.001$ ; GFI = 0.923; RMR = 0.152; CFI = 0.865; RMSEA = 0.105. An additional modification indices suggestion to add a path from items 11 to 7 was deemed inappropriate, and so the present factor solution was retained.

Model fit for the CFA of transformation provided the following results:  $\chi^2(2) = 87.403, p < 0.001$ ; GFI = 0.814; RMR = 0.255; CFI = 0.838; RMSEA = 0.507. Modification indices suggested adding a path from item 4 (“I believe I am happier now



because of the song I just heard”) to item 3 (“The song is the reason I feel better now than I did before”), which is not surprising due to their high correlation ( $r = 0.817$ ). Removing item 4 for redundancy cannot be completed due to insufficient degrees of freedom.

However, adding this recommended path provides the following improved model fit results:  $\chi^2(1) = 0.183, p > 0.6$ ; GFI = 0.999; RMR = 0.005; CFI = 1.00; RMSEA = 0.00.

As a result, the above shows that transportation and transformation provide sufficient evidence that they are discriminant constructs. The following analyses are based on the composites of these constructs, replicating the same approach used in the previous three experiments.

### *8.2.3 Transportation effects on perceived positive transformation.*

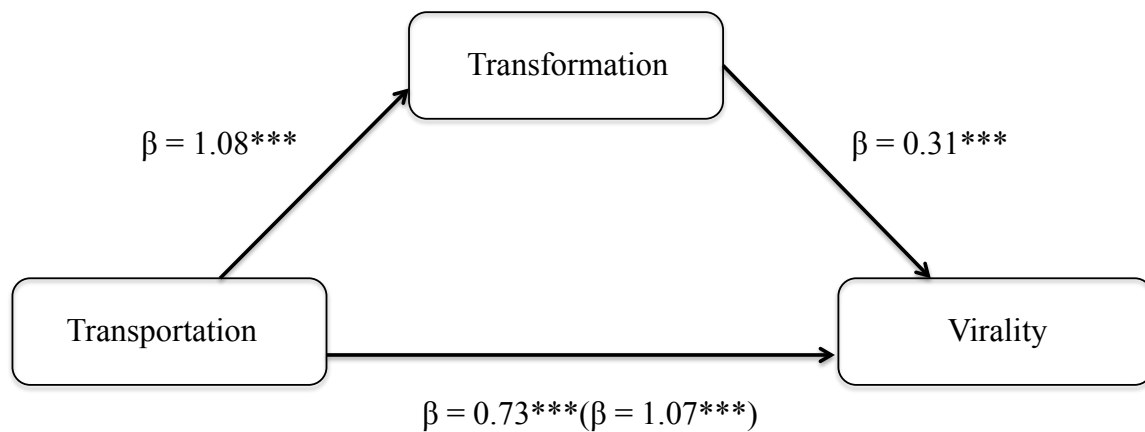
Perceived positive transformation (referred to as transformation from here on) (Cronbach’s  $\alpha = 0.905$ ) was regressed on transportation (Cronbach’s  $\alpha = 0.780$ ) and open to experience. In addition, the following control variables were also included: affect, arousal, absorption, nostalgia, involvement and need for cognition.

The regression model was significant,  $F(8, 159) = 20.04, p < 0.001$ . As hypothesized in *H7*, transportation significantly predicts transformation, ( $r = 0.64, p < 0.001$ ;  $\beta = 0.53, t(166) = 3.61, p < 0.001$ ) when controlling for affect, arousal, absorption, involvement, nostalgia and need for cognition. The main effect of open to experience and the interaction between transportation and open to experience were not significant. These results suggest that while there is no support for the interaction between transportation and open to experience (*H8*) on transformation, there is support for *H7* and transportation’s ability to predict perceptions of felt change.

#### 8.2.4 The mediating role of transformation on giving behavioral intentions.

*H9* suggests that transformation should mediate the relationship between transportation and the three giving behaviors (described earlier as virality, value and volunteerism).

Preacher and Hayes (2008) indirect mediation analysis was conducted using transportation as the independent variable, transformation as the mediator, the giving behaviors as dependent variables, and the same control variables. Of these three giving behaviors, virality  $F(7, 160) = 18.84$   $p < 0.001$ , CI (0.18, 0.52) demonstrated partial mediation. All other causal chains did not yield appropriate confidence intervals for the mediating role of transformation. This analysis provides some support for *H9*, suggesting that the relationship between transportation and virality is partially mediated by transformation.



Note: \*\*\* = significant at 0.001 level

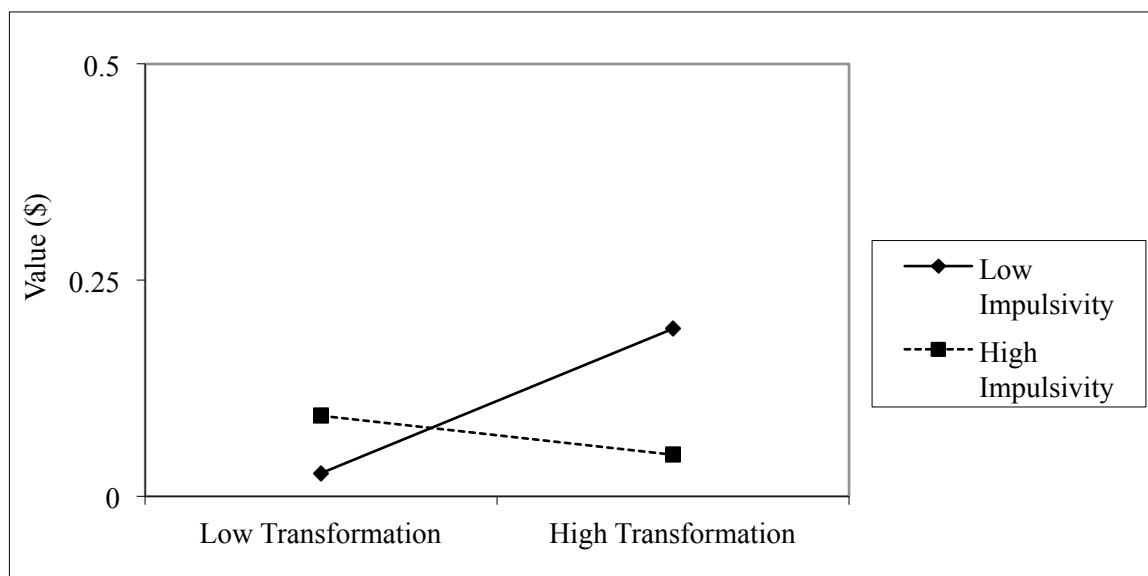
**Figure 7: Transformation partially mediating the relationship between transportation and virality**

**8.2.5 Impulsivity as a moderator.** *H10* suggests that impulsivity should moderate the relationship between transformation and virality (willingness to share), and transformation and value (willingness to pay). Each of these models was analyzed separately.

While transformation does predict virality ( $\beta = 0.16$ ,  $t(159) = 2.12$ ,  $p < 0.05$ ), the interaction between transformation and impulsivity was not significant ( $\beta = 0.11$ ,  $t(158) = 1.28$ ,  $p = 0.202$ ). Of the control variables, arousal ( $\beta = 0.18$ ,  $t(158) = 1.69$ ,  $p < 0.10$ ) and involvement ( $\beta = 0.74$ ,  $t(158) = 8.08$ ,  $p = 0.000$ ) also significantly predict virality.

In the second regression model, the interaction between transformation and impulsivity was significant ( $\beta = -0.06$ ,  $t(158) = -2.08$ ,  $p < 0.05$ ). In addition, absorption ( $\beta = 0.07$ ,  $t(158) = 1.95$ ,  $p < 0.06$ ) and involvement ( $\beta = 0.05$ ,  $t(158) = 1.74$ ,  $p < 0.09$ ) also significantly predict value. To explore the interaction further, Aiken and West (1991) spotlight analysis was used. The negative interaction relationship shows that low impulsivity (-1SD) combined with perceived positive transformation results in a significantly higher willingness to pay for the experience compared to those who didn't report having felt positively transformed by the song ( $\beta = 0.20$ ,  $t(158) = 2.26$ ,  $p < 0.03$ ). On the other hand, those with high impulsivity (+1SD) demonstrated that they were willing to pay significantly less when they experienced positive transformation ( $\beta = 0.14$ ,  $t(158) = 2.04$ ,  $p < 0.05$ ).

**Table 14: Simple slopes analysis of interaction between transformation and impulsivity**



Taken together, these results suggest that there is partial support for the interactions hypothesized in *H10*. Transformation predicts willingness to share (virality), and it also interacts with impulsivity to predict value. Further, there is evidence for the role of arousal, absorption and involvement in predicting virality and value.

**8.2.6 Empathy as a moderator.** *H11* predicts that empathy should moderate the relationship between transformation and volunteerism (willingness to help). A logistic regression was conducted on the first part of the volunteerism measure, a dichotomous variable (yes/no). Two rounds of analysis were conducted, the first including all participants regardless of whether they guessed the cover story ( $N = 168$ ), and the second excluding all those who guessed the cover story ( $N = 111$ ). The first iteration of this analysis did not produce significant results. The three predictor model did not provide a statistically significant improvement over the constant-only model. The second iteration of this analysis ( $N = 111$ ) also did not provide a statistically significant improvement over the constant-only model.

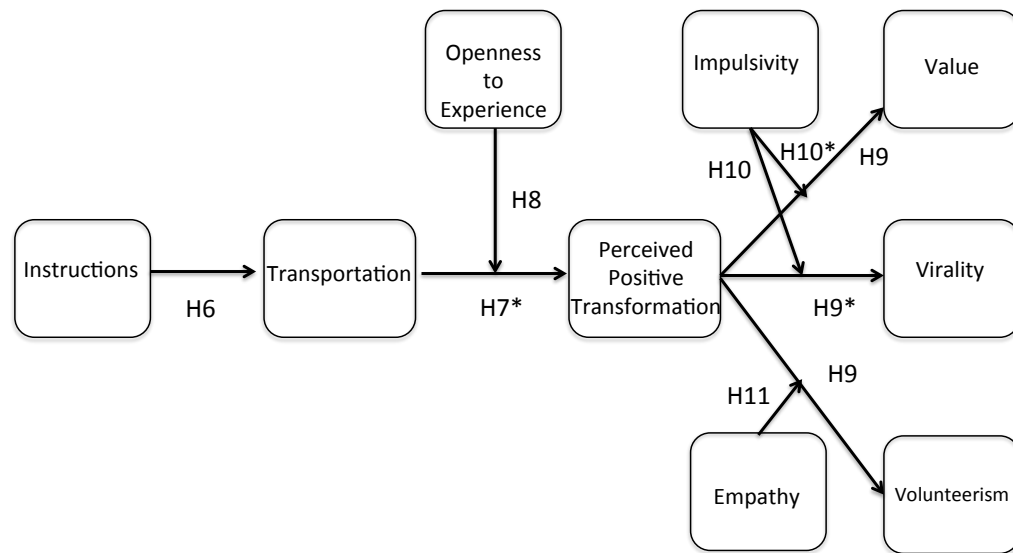
The second part of the analysis looked only at those who agreed to volunteer ( $N=55$ , approximately 50% of those who did not guess the cover story). The dependent measure was the time they would be willing to donate, in minutes. This variable was log transformed due to its strong kurtosis (2.410) and skewness (1.590) (see Table 10 for the descriptive output) (Volunteer\_time\_log). The regression model was not significant  $F(9, 45) = 1.24, p > 0.30$ . As a result, there is no support for *H11*.

**Table 15: Descriptive statistics for the log transformed Volunteer\_time variable**

	N	Mean	SD	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
Volunteer time log	55	1.15	0.32	0.106	0.322	-0.650	0.634
Valid N	55						

## 8.3 Discussion

In summary, this experiment found support for *H7*, *H9* (virality) and *H10b* (value) (see Figure 8). These results provide empirical support for the role of auditory transportation (*H7*) and transformation (*H9*, *H10b*) in consumers' experiences with music. On the one hand, self-reported auditory transportation levels significantly predict the extent to which individuals perceive that they have been positively transformed by the auditory experience (*H7*). This is a new theoretical development to the study of transportation as the effect of being “changed by the journey” (Green and Brock 2000, 701) has not been empirically tested to date. On the other hand, the hypothesized trait variable, open to experience, failed to demonstrate a significant moderating role in this relationship.



**Figure 8: Hypothesized and supported relationships (denoted by \*)**

Furthermore, important downstream consequences of being transported were also investigated and these included willingness to pay (value), willingness to share (virality) and willingness to help (volunteerism). Results demonstrated that transformation partially mediates the relationship between transportation and virality (*H9*). This suggests that the more an individual feels positively changed by being transported in the auditory experience, the more they are willing to engage in sharing behaviors targeted at promoting this and similar experiences. Furthermore, the moderating role of impulsivity on value demonstrated that individuals who are not impulsive by nature will actually be willing to pay significantly more for the song if they also reported having been positively transformed (*H10b*). The implication for this is that perceptions of positive change attributed to a particular song will enhance the likelihood of paying more for such an experience, particularly among those who consider themselves to be prudent thinkers. On the other hand, it seems that those who self-report as highly impulsive demonstrated a

lower willingness to pay after experiencing positive transformation. It may be that while these individuals consider themselves to be impulsive decision-makers, having experienced a positive change such as this may make them counter their tendencies to make impulsive choices. Additional investigation regarding why this highly impulsive group has a lower willingness to pay for a positive experience is required. It may be that having felt a positive change as a result of the music created heightened self-awareness and subsequent control. Verifying this remains an empirical question.

Finally, absorption, arousal and involvement were all found to be significant predictors of value and virality. Absorption conceptually captures attentional allocation and the extent to which one becomes fully engaged with an event (Tellegen and Atkinson 1974). Similarly, arousal (Mehrabian and Russell 1974) and involvement (Zaichoswsky 2012) also conceptually address heightened attention towards a focal object. Involvement captures motivated attention directed at an object (Zaichowsky 212), while arousal captures aspects of heightened psychological and physiological awareness (Mehrabian and Russell 1974). This provides some evidence for the important role of attention in contributing to successful auditory transportation, particularly in cases where there is no visual narrative to explicitly direct one's mental activity.

## Chapter 9

### 9 Contribution and General Discussion

This research was motivated by a desire to better understand the universal human activity of music consumption. What came out of this investigation is evidence that such consumption experiences offer a promising avenue for experiencing positive psychological changes, and for determining when and why such experiences may influence marketplace decisions.

Throughout this dissertation, my research has aimed to delve more deeply into the consumption phenomenon of music listening and to build upon evidence provided by the marketing and psychology disciplines to date. In particular, one of the main distinctions this research has aimed to provide is the incorporation of participant chosen music. While marketers can control the music that is used in advertisements, jingles and retail environments, they can't control how the individual consumer experiences music "outside" of marketplace communications. In other words, the music that an individual listens to on their portable MP3 player/car radio/smart phone on the way to the mall cannot be controlled, manipulated nor planned for. It is in these cases where this research stands to make important managerial contributions.

First, the carefully controlled manner in which personally favorite songs are consumed suggests that consumers can experience real changes to their psychological state, often over just a few minutes. This means that over a brief period of time, a



consumer can go from one (perhaps neutral) state to a more emotionally and cognitively charged state when the song has strong personal ties. Second, music's ability to transform how the individual consumer feels, thinks and intends to act, can in turn influence the way that the marketplace is interacted with. The experimental work shows this by demonstrating that both experimentally chosen as well as participant chosen music influences and amplifies affect, and that this is moderated by the extent to which the consumer is transported by the song.

Finally, the role of auditory transportation is indeed important from a managerial perspective as this demonstrates that music, when focused upon, can leave a consumer more willing to share their experience with other consumers, and to pay for similar experiences. In a sense, consuming music is not just beneficial because it can feel like an other-worldly journey resulting in positive change, it can also be a tool for cultivating prolonged enjoyment simply by choosing to engage with the experience at a marketplace level. In fact, the affect-as-information literature tells use that those in a positive affective state are more likely to view relevant subsequent decisions positively, particularly when the source of the positive affect is made salient (Clore and Huntsinger 2007; Schwarz and Clore 2007). In much the same way, being in a positive affective state as a result of the positive changes from the auditory experience promotes the desire to share its benefits with others.

Theoretically, this mixed-method research has included a rigorous and systematic investigation of how transportation theory's three components can inform the music listening experience and its downstream effects. The experimental approach not only corroborated evidence from the phenomenological investigation and the role of

transformation, but my findings demonstrate that transportation theory can provide a compelling lens for understanding why and how the music consumption experience is so rich.

Beginning with a phenomenological investigation, I show how consumers readily experience identifiable as well as inexplicable changes from listening to favorite songs. One-on-one depth interviews with participants centered on both the pre-consumption phase of the experience, followed by an in-situ consumption phase of actual music listening. This approach lent itself well to the dynamic nature of special experiential possessions such as music, and helped inform the temporal thematic framework that came out of this study. Future research could expand on this framework by broadening the number of songs investigated (e.g. allowing for two to three favorites instead of one), by including special populations, and by exploring potential boundaries of the types of experiences that work with this framework. Indeed, research to date has only begun to explore what it is like to reconsume experiences (Russell and Levy 2012). By using the present thematic framework as a basis for the importance and distinctiveness of special experiential possessions, researchers can better address the benefits of focusing on experiential possessions in lieu of material goods to improve well-being.

In the experiments that follow the phenomenological work, I begin by first validating the presence of auditory transportation. Based on the presence of “transformation” in the qualitatively-derived framework and my suggestion, based on theory and my data, that transported individuals come back changed, the introduction of transportation theory to the auditory domain provided a logical next step. The experimental work not only demonstrated that transportation can occur outside of the

visual domain, but that transported consumers can report amplified affective states, real and positive changes from their journeys, the desire to pay for the experience, and a willingness to engage with others to further promote the experience.

First, the results from the pretest were in line with prior theoretical and empirical assertions that the more pleasing the music (operationalized as major mode), the greater the reported transportation levels. Furthermore, free thought listing showed that the major mode condition created more self-focused versus other-focused thoughts. This suggests, in other words, that the auditory transportation experience can involve more personal relevance if the stimulus is appealing rather than aversive.

While this is not surprising, experiment 1's attempt to replicate these findings by using the same song across conditions (modified into major and minor mode with the software Melodyne) provided contradictory insights. Contrary to evidence that suggests that major mode music is always more pleasing than minor mode music (and thus should lead to greater transportation), results showed that there was no difference. In parallel fashion, there was no significant difference in the self vs. other focused thoughts.

Upon closer inspection, it is apparent that experiment 1 did not replicate the transportation effects found in the pretest as the minor mode song was also atonal. According to Bruner (1990), atonal music is characterized by dissonant chords typically rated as highly displeasing to Western cultural taste. This in essence overpowered the listening experience and drove the significant transportation and thought focused effects observed in the pretest. Furthermore, converting the original song, Minor Swing, into major mode may not have created enough of a distinction to capture differences in auditory transportation. That is, both the original (minor) and major mode conditions

provided almost identical transporting experiences. Future work can further address the question of major vs. minor transportation levels by including more than one song per condition. For example, by using Melodyne to modify a set of songs (ranging in tempo, genre, etc.), effects across the major and minor mode groups can be compared without concern for any artifact related to a single song.

In addition, the role of attention can also be better addressed by manipulating levels of directed focus on the song. In hindsight, it seems that attention may be one possible driver for the different transportation levels across music conditions, such that the more pleasing song led to more focused attention which in turn resulted in increased auditory transportation (particularly in the pretest). This is also somewhat apparent in the Instruction examples (provided in Appendix F) that aim to enhance or inhibit transportation. When Green and Brock (2000) ask participants to focus on spelling and grammar (4<sup>th</sup> grade manipulation example), they are effectively diverting attention away from the narrative and working to inhibit transportation. Their results showed that these were the only instruction manipulations (across both the enhancing and disrupting conditions) that worked to strongly reduce the transporting effects. Taken together, the results from these two studies provide the first evidence for auditory transportation through music listening, while simultaneously showing that predicting the levels of transportation across major and minor mode music pieces may not be as cut and dry as previously thought.

The most ambitious theoretical and managerial contributions come out of experiments 2 and 3. These experiments begin to explore how transportation occurs when the song is not always experimentally chosen, and further, how each component of the

theory can be better used to explain the way transportation theory works. Marketers have little control over what music individual consumers choose to play in their personal, “non-marketplace”, time. Experiment 2 offers one of the first direct investigations of this. By giving participants the reins to bring in their own music for use in the experiment, I may have relinquished some control, but I simultaneously addressed an important validity gap plaguing this body of research. Most interestingly, this study demonstrated how a song’s personal connotations resulted in amplified and congruent affect if successful transportation was reported. However, this was only observed for individuals who listened to their favorite happy song. Those in the sad song condition demonstrated a lower happiness rating regardless of their transportation level, suggesting that there may be something unique about music with more personally happy associations. It may be that sad songs, by nature, are composed in a way that can dampen affect without requiring additional attentional resources, while happy songs differ in their effects depending on the degree to which the listener is directly attending to it, and therefore transported. This remains to be investigated.

Regardless, the main contribution of experiment 2 is not just the use of auditory transportation as a moderator of the effects of the song. It is in the fact that the musical pieces were individually hand picked by each participant without repetition, rather than experimentally controlled, and that the effects were present across the board.

So what might this mean for how consumers interact with the marketplace on a day-to-day basis? After having established that auditory transportation does indeed occur, and that personally relevant songs have the ability to significantly influence how we feel

in line with their valence, what are the more practical consequences of being musically transported? Experiment 3 attempts to answer these questions.

Experiment 3 answers calls to better explain how transportation theory works, not only by its own author (Green 2004), but also by researchers using the theory in recent years (Mazzocco et al. 2010; Hende and Schoormans 2012; Van Laer et al. 2014). While the attempt to disentangle the cognitive, emotive and imagery components of transportation theory failed, it is unclear if this was a result of a poor manipulation strategy or confusion on the part of participants. Future work would benefit from examining how each aspect of transportation theory contributes to the experience by using measures administered in conjunction with the transportation scale. For example, measures that separately capture the extent to which imagery, emotions and attention were allocated to the experience would be better indicators of how transportation levels differed across participants.

Still, three of the main contributions to come out of Experiment 3 show that auditory transportation can 1) significantly predict perceptions of positive change, 2) significantly predict marketplace behavioral intentions, and 3) that such experiences can occur with novel pop songs. First, the notion that transported individuals come back changed has only been theoretically suggested, but never empirically assessed to truly measure felt “content-less” changes. Specifically, works using (narrative) transportation theory have frequently included dependent measures that address aspects related to the persuasiveness of the content in the narrative (e.g. health related warnings, drug abuse, willingness to purchase the product) as evidence of change in attitudes. Auditory transportation differs from these often-explored consequences in that there is no clear

content-driven message or purpose. Instead, the empirical evidence shows that the listener who experiences transportation will also show positive changes as a result of the experience. This provides some of the first evidence for “change” that is not bounded by the content of the stimulus.

Second, this experiment demonstrated that perceptions of positive transformation significantly predict the consumer’s choice to pay for this experience, and to engage in sharing the song with both familiar and unfamiliar others. These are unique market-relevant measures that should spark some interest for practitioners. Specifically, this evidence shows that the combination of auditory transportation and the ensuing positive transformation due to the overall experience drives the desire to pay more for the experience (particularly among those who are not impulsive), and to share the song with both with one’s direct social circle, as well with the broader public.

Finally, this song stimulus was pretested among a group of other unfamiliar yet highly popular songs selected from the music charts in Europe and Australia. In doing so, it was assumed that no prior personal associations would interfere with the dependent measures, while anticipating that the level of popularity these songs achieved in other countries would be comparable to the type of music that would be popular in North America. This brings the thrust of this research full-circle by reconciling the issue of predominantly experimentally controlled music in marketing research with the desire to better understand how consumers experience music in their daily lives, outside of “marketplace” contexts. This added ecological validity shows that transportation theory works with both personally chosen songs as well as with unfamiliar yet popular songs, and that being successfully transported means that one not only experiences amplified

affect, but also positive changes, a desire to consume this experience again, and a willingness to share this experience with others.

In an interview with retired Canadian astronaut Chris Hadfield (known for his penchant for combining music with life on the International Space Station), he explained how music became a critical aspect of life in space as early as the 1970s:

"A long time ago, we realized that if you could give the crew some great, familiar, energetic, rev-you-up kind of music in the morning, that's a good way to get going," says Hadfield. "Sometimes we just choose it ourselves. Sometimes we ask the spouses, the husbands and wives of astronauts. You try and choose something that's specific for that person." (Rose, 2011).

In much the same way, this research has strived to bring to light how critical music is for daily life, for creating affective changes and a sense of positive change, and for demonstrating why the music experience deserves greater focus as a consumption activity. If astronaut Chris Hadfield relied on music to maintain a sense of normalcy in outer space, then the study of music as a daily activity in a consumer's life on Earth surely merits just as much scholarly attention.



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## APPENDIX A

### Study 1: Interview Guide

“Thank you for agreeing to be part of this research study. As you know, I am interested in your thoughts on a favourite song of your choice. We’ll start with some general questions and then I’ll ask some more specific questions about your song choice.”

#### Warm-up/General Questions

- What is your name?
- What is your age?
- What is your occupation (What is your major)?
- Where were you born? Where did you grow up?
- Where do you live? City and province?
- How would you describe your ethnic background?

#### Part 1: Song Choice & Context questions

- Grand Tour Question: What song did you bring in today?  
     PROBING:
  - Why did you choose this one in particular?
  - What can you tell me about it?
  - When did you first hear this song?
    - Who was there, where was this, what happened?
  - How would you describe it?
    - Genre, style, popularity, etc.
  - What do you feel when you hear this song?
    - What emotions or feelings do you have?
  - What do you think about when you hear this song?
    - What goes through your mind?
  - Have you heard this song in contexts outside of your control, such as at other people’s homes, in cars, in stores or restaurants?
    - Can you tell me more about it?
    - How did it make you feel? What was going on at the time?
    - What were you doing before, during, after the song?
  - Are there any other songs that you were thinking of bringing today?
    - Why (yes/no)?
      - How did you finally decide?

#### Part 2: Play Song

“Next, I’d like to listen to the song with you. During this part, I ask that you use this paper and pen to freely write down your thoughts and listening experience. Write down whatever thoughts come to your mind and take your time. We can also play this song

more than once if you like. This is so I can better understand how you personally experience this song. Again, I will not use your name or any identifying information when I look at this later. Your information will remain confidential. Do you have any questions before we begin?"

### Part 3: Follow-up

- What do you like about this song?
  - Are there any parts you don't like? Can you tell me more?
- Can you describe how you are feeling now after listening to this song?
  - What words or images would you use?
  - Is this a typical feeling for you after listening to this song?
- What can you tell me about how you felt during the song?
  - Were there any *thoughts, feelings, images* going through your mind?
    - If yes, can you tell me more about them?
  - Did anything or any particular moment or part stick out for you?
    - Why/why not?
    - Can you describe it/them for me?
      - How you felt, what you thought, etc.
- When do you normally listen to this song?
  - Time of day? Location? Alone? Why?
  - How often would you say you choose to listen to this song?
    - In the past day, week, month, year?
  - How do you decide whether to listen to this song?
- Are there any other songs that have the same kind of meaning or experience for you?
  - Can you tell me more?
  - What about other bands or musicians?

Is there anything else you'd like to share that you think may be helpful?

Thank you again for agreeing to participate in this study.

## APPENDIX B

### Adapted Transportation Scale (adapted from Green and Brock 2000)

Choose the number that best represents your experience with the song (1- not at all, 7- very much)

1. While I was listening to the song, I could easily picture images created by the music.
2. While I was listening to the song, activity going on in the room around me was on my mind.
3. I could picture myself in the images I had created from the music.
4. I was mentally involved in the song while listening to it.
5. After the song ended, I found it easy to put it out of my mind.
6. I wanted to keep listening to the song.
7. The song affected me emotionally.
8. I found myself thinking of ways the song could have turned out differently.
9. I found my mind wandering while listening to the song.
10. The images I had from the song are relevant to my everyday life.
11. The images from the song have changed my life.

Note: Items 2, 5, and 9 are reverse-scored.

## APPENDIX C

### Transportation theory and related constructs

Construct	Definition	Details	Measurement	Relevant Citations
<b>Transportation</b>	Absorption into a story (Narrative Transportation). A melding of cognition, affect and imagery.	Initially used with visual narratives to describe a specific type of absorption. Results in story-consistent beliefs, fewer critical evaluations, less counter arguing and increased persuasion.	Narrative Transportation scale	Green and Brock 2000; Green 2004; Escalas 2004; 2007
<b>Flow</b>	A positive experiential state where the individual's personal skills equal required challenges.	Connected to performance, it is intrinsically enjoyable. Conceptually related to motivation, peak performance, peak experience, and enjoyment. Found in work, school, leisure and sports. Flow has positive experiential characteristics: freedom from self-consciousness and enjoyment in the process. Flow is present during peak performance among athletes. Flow has 9 dimensions: 1) challenge-skill	Flow State Scale: 4 items per dimension = 36 items.	Jackson and Marsh 1996; Csikszent-mihalyi 1990

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balance; 2) action-awareness merging (feel “in the groove”); 3) clear goals (feel strong sense of what to do); 4) unambiguous feedback (immediate, clear feedback tells person about whether succeeding in goal); 5) concentration on task at hand (feel really focused); 6) sense of control (like can do anything in that state); 7) loss of self-consciousness (becomes one with activity); 8) transformation of time (either slows down or speeds up); 9) autotelic experience (intrinsically rewarding-done for own sake)

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<b>Magical Thinking</b>	Creating or invoking extraordinary connections in order to understand, predict or influence events.	Traditionally found when trying to cope with stress. Current paper suggests it is a meaningful cultural practice vs. an irrational cognitive process. Context: weight loss. Magical thinking can be used to “construct a	3 themes: creative persuasion in a culture of thinness; symbolically negotiating with the mysterious forces that affect weight control;	St. James, Handelman & Taylor (2011)
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		space of ambiguity to sustain hope in their pursuit of goals” (ST. James et al. 2011, 646)	chimerical agency	
<b>Involvement</b>	A person’s perceived relevance of the object based on inherent needs, values, and interests.	Involvement is “fleeting, variable, and meant to capture a motivation, not an innate personal trait” (Zaichowsky 2012, 526). It has both cognitive and affective items, and can be used to measure involvement with advertising, products, or purchase situations. Involvement antecedents: personal factors (needs, importance, interest, values), object factors (alternatives, source of communication, content), situational factors (purchase/use, occasion). Motivation could be to: counter argue, induce purchase, prefer brands, perceive differences in products, engage in info search and deliberate on alternatives.	Personal Involvement Inventory (20 items) & Revised Personal Involvement Inventory (10 items)- RPII semantic differential scale.	Zaichowsky (1985) and (2012)
<b>Nostalgia</b>	A preference	Two types of nostalgia:	20 item	Holbrook

	(general liking, positive attitude, or a favorable affect) toward objects (people, places or things) that were more common (popular, fashionable, or widely circulated) when one was younger (in early adulthood, in adolescence, in childhood, or even before birth) (Holbrook and Schindler 1991, 330)	age associated nostalgia and nostalgia proneness. Age nostalgia: preferences for music peaks for songs popular during about age 23.5 (Holbrook and Schindler 1989). Nostalgia proneness: a trait to capture the propensity towards nostalgia proneness (independent of time or age related factors) (Holbrook 1993).	Nostalgia Proneness scale.	1993; Holbrook and Schindler 1991; Holbrook and Schindler 1989
<b>Daydreaming</b>	The report of thoughts that involve a shift of attention away from an immediately demanding task. Stimulus-independent mentation.	Argue that people can be more/less disposed to daydreaming (having task irrelevant thoughts). Recent neuroscience evidence shows that when a task is novel, this engages the brain's executive functioning and reduces SIT (stimulus independent thought). With practice of a task, novelty goes	Imaginal Process Inventory (IPI)- 28 scales of 12 items each, capture different aspects of daydreaming (i.e. frequency of daydreaming, positive reactions in daydreams,	Singer and Antrobus (1972); Singer (1975); Mason et al. (2007)

		down and SIT is higher ( $p < 0.05$ ). The IPI is represented by 8 first-order factors and 3 second-order factors: Positive- Constructive Daydreaming, Guild and Fear of Failure Daydreams, Attentional Control.	acceptance of daydreams, hostile- aggressive daydreams, visual imagery in daydreams, etc.)	
<b>Absorption</b>	“A disposition for having episodes of ‘total’ attention that fully engage one’s representational (i.e. perceptual, enactive, imaginative, and ideational) resources” (Tellegen and Atkinson 1974, 268)	A trait. Absorption correlates with hypnotizability/hypnotic susceptibility ( $r=0.4$ ) (Tellegen and Atkinson 1974). The TAS has 2 subscales: reality absorption (the tendency to become immersed in movies, acting, nature, voices, past events, etc.) and fantasy absorption. Absorption should further be correlated with the following “state-like” manifestations: a heightened sense of the reality of the attentional object; imperviousness to normally distracting events; an altered sense	Tellegen’s Absorption Scale (TAS) (Tellegen and Atkinson 1974)	Tellegen and Atkinson (1974)

of reality in general and  
of the self in particular.

<b>Peak Experience</b>	An intense and highly valued moment- “joyful, transitory, unexpected, rare, valued, and extraordinary to the point of often seeming as if derived from a praeternatural source” (Laski 1962, p.5). “Moments of highest happiness and fulfillment” (Maslow 1962, p. 69)	First introduced by Maslow (1962), it is an optimal level of subjective experience/ an optimal human experience. Peak experience is seen as an experience that surpasses the usual level of intensity, meaningfulness, and richness. It is nonmotivated, passive, spontaneous, involves attention and absorption, and is outside of time and space (Privette 1983). Related to ecstasy and happiness (Privette and Bundrick 1991) Finally, it is about intense joy, “a moment of highest happiness that stands out perceptually and cognitively among other experiences” (Privette and Bundrick 1991)	Retrospective self-reports of peak or ecstatic experiences. Content analyzed.	Maslow 1968; Laski 1962; Privette and Bundrick 1991
<b>Peak Performance</b>	An episode of superior functioning	An optimal human experience. It describes a high level	Retrospective self-reports of peak	Privette 1964; 1981; 1983

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(Privette 1964)	of superior functioning rather than a type of activity. Occurs through art form, physical strength in crisis, in athletic events, intellectual mastery of a problem, a rich human relationship. It is motivated, not spontaneous, and there is awareness of power, clear focus, and absorption,	performance in various activities. Experience Questionnaire (Privette 1964)- asks to narratively describe a personal episode of one event (peak performance).
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## APPENDIX D

### Descriptive statistics for constructs used in experiments

#### Pretest

Construct	Alpha	Mean	SD
Auditory Transportation	0.822	3.47	1.05

#### Experiment 1

				Correlations					
Construct	Alpha	M	SD	1	2	3	4	5	6
1. Auditory Transportation	0.801	3.87	0.99	1					
2. Need Cog.	0.877	4.96	0.78	0.031	1				
3. Nostalgia	0.752	3.84	0.60	0.136	-0.188	1			
4. Absorption	0.758	4.74	0.98	0.282 *	0.130	0.212 **	1		
5. Affect	0.868	5.09	0.95	0.251 *	-0.060	-0.037	0.180	1	
6. Arousal	0.585	3.72	0.66	0.277 **	-0.045	0.133	0.243 *	-0.015	1

Note: \* denotes significant at  $p < 0.05$ , \*\* significant at  $p < 0.01$ , \*\*\* significant at  $p < 0.001$

#### Experiment 2

				Correlations							
Construct	Alpha	M	SD	1	2	3	4	5	6	7	8
1. Auditory Transp.	0.842	4.06	1.13	1							
2. Need Cog.	0.868	4.66	0.80	-0.052	1						
3. Nostalgia	0.636	3.62	0.47	0.130	-0.109	1					
4. Absorption	0.755	4.92	0.95	0.221 *	-0.040	0.1	1				
5. Affect	0.879	4.39	1.31	0.379 **	-0.055	0.036	0.004	1			
6. Arousal	0.825	3.42	1.13	0.217 *	0.074	0.047	0.019	0.484 **	1		
7. Involvement	0.973	4.46	1.84	0.788 **	-0.067	0.123	0.006	0.566 ***	0.346 **	1	
8. Happiness	0.898	3.11	0.84	-0.145	-0.057	0.036	-0.105	0.589 **	0.391 **	0.060	1

Note: \* denotes significant at  $p < 0.05$ , \*\* significant at  $p < 0.01$ , \*\*\* significant at  $p < 0.001$

## Appendix E

### Sad and happy songs chosen by participants in Experiment 2

Condition	Song Title	Artist
Sad	Let Her Go	Passenger
	Fix You	Coldplay
	He Ain't Heavy, He's My Brother	The Hollies
	Long Long Way to Go	Def Leppard
	Oh, Calamity!	All Time Low
	A Perfectly Good Heart	Taylor Swift
	Promise	Ben Howard
	Concrete Angel	Martina McBride
	How to Save a Life	The Fray
	Steal You Away	Dash Berlin
	Superman	Five for Fighting
	Tangled Up in You	Staind
	Don't Speak	No Doubt
	Marvin's Room	Drake
	Fix You	Coldplay
	Last Kiss	Pearl Jam
	Goodbye in Her Eyes	Zac Brown Band
	Jide	JJ Lin
	Skinny Love	Birdy
	Fall Again	Michael Jackson
	The Prayer	Celine Dion & Andrea Bocelli
	(Angel of) Mercy	One Republic
	The Funeral	Band of Horses
	Next	The Weekend

	Nothing We Can Do	Upper West
	Climax	Usher
	The End Result is Not What I Want	Jacky Cheung
	Wintersong	Sarah McLaughlin
	To Build a Home	The Cinematic Orchestra
	My Soul	July
<b>Happy</b>	Can't Hold Us	Macklemore and Ryan Lewis
	Wagon Wheel	Darius Ruck
	Should I Stay or Should I Go	The Clash
	The Middle	Jimmy Eat World
	Take a Back Road	Rodney Atkins
	L.A. Baby	The Jonas Brothers
	Acapella	Karmin
	Marry You	Bruno Mars
	Otis	Kanye West ft. Jay Z
	Titanium	David Guetta
	Thrift Shop	Macklemore and Ryan Lewis
	Running on Empty	Jackson Brown
	Boing Clash Boom	Dada Life
	Animals	Martin Garrix
	Falling in Love	2NE1
	The Saints Are Coming	U2
	Meet Virginia	Train
	Going Out	Joe Hisaishi
	One Life	Hedley
	Waiting on the World to	John Mayer



Change	
Santeria	John Mayer
Walking on Broken Glass	Annie Lennox
Crazy in Love	Beyoncé
All Me	Drake
Cruise	Florida Georgia Line
Overtime	Cash Cash
Wake Me Up	Avicii
Uncharted	Sara Bareills
What Makes You Beautiful	One Direction
Moves Like Jagger	Maroon 5

## APPENDIX F

### Transportation instruction manipulation examples

Authors	Instruction Manipulation	Objective
<b>Green and Brock (2000)</b>	<p>(Theatre) <i>“Today, you will be reading a narrative that will be used to help actors and actresses become involved in a role...While reading this narrative, use your imagination. Think about the setting, about how the characters are feeling, and how you might feel in the situation. Immerse yourself in the action of the story. You are now Joan Mason!”</i></p> <p>(Narrative) <i>“In this study, we are testing several stories for possible use in future experiments. You will be reading one of these stories...Your responses will help use evaluate the story for use in future studies on memory and information processing...While reading this narrative, use your attention. Think about what is happening. You are now ready to begin.”</i></p> <p>(Fourth-grade) <i>“Many adults in adult literacy programs are able to reach fourth-grade level reading. Interesting stories at the fourth-grade level are therefore needed for these adults. For the fourth-grade reader, it is important to avoid long words (too many syllables), avoid complex sentences (too many clauses), and avoid</i></p>	<p>Theatre condition instruction meant to encourage transportation.</p> <p>Narrative condition meant to show “baseline” transportation level</p> <p>Fourth grade instructions meant to reduce transportation.</p>

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	<p><i>difficult expressions (familiar words in hard-to-understand combinations). Today, we are asking you to read a narrative and ... evaluate it for use by adults who read at the fourth-grade level... While reading this narrative, concentrate on the writing style and difficulty level.</i>”</p>	
<b>Green (2004)</b>	<p>(Narrative) “<i>As we are interested in your natural responses to this music, please try to relax and listen to it as if you were leisurely listening to it in the comfort of your own home. We will ask you some questions about your experience after.</i>”</p> <p>(Elaboration) “<i>Think carefully about the arguments, statements and beliefs the characters and settings seem to depict.</i>”</p>	<p>Narrative instructions intended to induce relaxation and enhance transportation.</p> <p>Elaboration instructions intended to reduce transportation.</p>
<b>Escalas (2004)</b>	<p>(Mental simulation encouraged) “<i>Imagine yourself running through this park. Your feet feel remarkably light. You look down and see a pair of Westerly running shoes on your feet....Imagine yourself in Westerly running shoes to improve the comfort and quality of your morning run...</i>”</p>	<p>Mental simulation used to encourage transportation.</p>

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Lee, S.H. (Mark) and Leizerovici, G. (2011) "Longitudinal Study of Consumer's Need for Uniqueness on Development of Social Networks", in *Advances in Consumer Research*, 39, eds. Rohini Ahluwalia, Tanya L. Chartrand, and Rebecca K. Ratner, Duluth, MN: ACR. (pp. 279-286).

Leizerovici, G. (2010) "Experiential Consumption: A Look At the Performing Arts", in *Advances in Consumer Research*, 38, eds. Darren W. Dahl, Gita V. Johar, and Stijn M.J. van Osselaer, FL : ACR. (pp. 279-301).